THE LANCET.

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ON THE

EXTERNAL USE OF OPIUM

IN THE TREATMENT OF

BRONCHITIS AND CROUP.

Dr. Bow presents his compliments to the Editor of THE LANCET, and begs, through the medium of the pages of that journal, to make some remarks on the treatment of trachitis and bronchitis.

Alnwick, August, 1835.

The plan which I have followed in the treatment of trachitis and bronchitis has been so successful in my hands, that I am induced to consider it not only as the best but as the true mode of subduing those diseases. At Alnwick, and in its neighbourhood, it has been tried in upwards of a hundred cases, and in all, with a single exception, it has proved speedily efficacious; and although that single case ended fatally, its history will show that even there the effects of the remedy were such as to give confidence in its employment. The fatality attending these diseases has made them to be regarded as always dangerous; consequently a prompt and energetic treatment has been recommended by every writer and teacher, and I, in common with all, did think it the most judicious. If I now declare that I think that treatment the most injudicious that could well be invented, I do so from an honest conviction that depletion is not only unnecessary in the cure, but hurtful to the individual even whilst it cures. I say this with no invidious feeling; on the contrary, I praise the ardour and sincerity with which the practice is inculcated; but I refer to the success of my plan as to the best support of my views, which I also offer as the best apology for my dissent from the favoured doctrine and established practice.

My practice was not adopted in consequence of observing the good effects of an accidental employment of opium externally, but I was led to it by the light in which I viewed the physiology of inflammation. My conjectures as to that, and also as to the *modus operandi* of opium externally applied, made me anticipate the result, and I have not been deceived. As a pamphlet which I have written, and which contains my opinions on the nature of inflammation, may not be in the possession of the majority of the readers of THE LANCET, I shall here endeavour to explain those opinions, by which means I shall make it more easily apparent how so simple a remedy is productive of such sudden and beneficial effects.

It has been the fashion of late years with the medical periodicals to hurry, or pass over altogether, theoretical views, as if unnecessary, or even disadvantageous to, the improvement of practical medicine. Time and experience, it is said, have undoubtedly proved, that inflammation must be attacked with the lancet, and therefore it matters little what the nature of inflammation may be, since all agree as to the means to be employed in the cure. Your practical man, however, would be ashamed to confess that he took blood simply because somebody told him, or he knew by experience, that blood-letting cured inflammation. He is above that; he will tell you he does so to diminish the increased action of the arterial system, and he points to the effects of venesection as a proof that there did exist such increased action. Although dabbling in theory, such a practitioner is not considered a theorist, but a matter-of-fact man, and doubtless will regard me as a madman when I tell him, that in sympathetic fever the action of the arterial system is *not* increased, and that when blood-letting acts beneficially, it is by causing that system to act more forcibly. We know that there is *accelerated* action, because the number of pulsations is increased, and we know, as in mechanics, that therefore there ought to be a loss of contractile power proportionate to the acceleration, which is proved by the increased diameter of the vessels. During inflammatory fever there is a greater quantity than natural of blood in all the

arteries of the body, and we are gravely told, that this fulness is owing to increased action of these vessels, although in the same breath we are likewise told, that the proper action of arteries is contractile. John Hunter saw the fallacy of imputing the congestion of vessels to increased contractile power, but he had a hobby of his own, which carried him beyond the mark. From the analogy of condition of the bloodvessels in healthy and morbid inflammations, he considered inflammation not as a disease, but as a salutary operation consequent on violence or disease. In healthy inflammation he saw that the vessels were distended beyond their natural size, which he thought might arise from a diminution of their muscular power. A remedial or salutary operation however must needs be active, and as the bloodvessels were considered the sole agents in the process, increased activity in them would ill correspond with relaxation, the usual effect of impaired muscular power; so he tells us, that this diminution of the muscular power of the vessels differs from mere relaxation; it is an action to produce an increase of size of the vessels; it is an act of dilatation. The delusion of *increased* arterial action continues to hide from us the true nature of inflammation, principally because it wears a semblance of truth derived from an argument itself based on error; I mean the great, the non-disputed argument drawn from the relief obtained by venesection. Blood-letting is a debilitating measure, but if it be carried so far as to produce syncope, or a state approaching to it (and it is only then that it is really effective in subduing inflammation), it is not debilitating as regards the arteries. As soon as syncope takes place, the arteries at once unload themselves; instead of arterial distention, we in a second or two have venous congestion. Could this sudden change be effected otherwise than by an immense and sudden increase in the contractile power of the heart and arteries? Yet we are told that bloodletting acts by lowering the action of the heart and arteries both in *force* and frequency. This increase in contractile power gained by the arterial system, is the consequence of suspension of the functions of the brain, and is the immediate effect of the acquisition of nervous influence set free by such suspension. Inflammatory fever consists in *excitement*, not of the *sanguiferous* system, however, as is universally believed, but of the system of sentient nerves. Excitement of these nerves consists in an increased determination of nervous influence towards their extremities, and as this increase of nervous influence must be furnished at the expense of other nerves, the functions of the organs whose nerves are thus deprived of influence must become deranged. The nerves which convey contractile power to the arteries, are apparently the first that yield their influence to establish the excitement of the sentient nerves; and we come to this conclusion, because we see that the arteries become distended with blood, which could not happen if their contractile power continued unimpaired. As to increase in the frequency of the contractions, that alone points to debility, for the contractions cannot be so perfect as they were when less frequent.

The remote cause of inflammation may be the contact of irritating matter. What then does this matter irritate? Surely not the capillary vessels of the part, but the sentient nerves of the part. Why then has this primary effect of the remote cause been overlooked? It ought to have been made the first link in the chain of morbid actions which constitute inflammation, and not the change in the vascular structure, for that change cannot happen unless as the consequence of increased sensibility. Bichat was right in supposing that prior to the afflux of blood to an inflamed part, there was an increase of sensibility.

All that is required in the cure of inflammation and its fever is to diminish the excitement of the sentient nerves; this done, the arterial system immediately recovers its contractile power, and healthy action is re-established. If we bleed to syncope, or nearly so, we, through the brain, render the sentient nerves more or less deadened to the cause of their excitement, and thus the arteries recover their power. In this manner we can and do cure inflammation, but we debilitate the patient, and he is liable to be reattacked by the local disease, when the reaction, which usually follows depletion, takes place. When we have subdued the disease by venesection, our work is not finished, for having carved out more by means of the cure, we have to recover the patient from the effects of it. The *modus operandi* of bloodletting in the cure of inflammation is as I stated it; by it we impair the energy of the brain, and thus diminish nervous excitement. To subdue this nervous excitement, however, it is not necessary to act through the brain by a shameful waste of blood; it can be done directly and safely by opium applied to the surface of the body. By this practice croup and bronchitis are at once subdued; a few hours not only places the patient beyond danger, but in the enjoyment of his former health; and the practice has this in it, that should it promise a failure, which a

short time will decide, we do no harm, whilst every drop of blood lost which does no good is productive of mischief. I do earnestly desire your readers to try the plan; it has not yet failed with me, nor with two friends who have adopted it; and I am sure I have reason to say that whoever does try it will be no less pleased than astonished at the happy effects of so simple a remedy.

When my pamphlet was published, I had not had an opportunity of treating bronchitis in the adult subject; I have since had a few cases, and I select the two following as being the severest:—

Case 1.—The patient was an old lady, approaching her eightieth year, convalescent from a bilious attack. I was desired to visit her at nine o'clock a.m. on the 9th of February, 1834. Said she had felt uncomfortable during the previous day, and that she did not sleep during the night, owing to a severe and continued cough, and pain darting from between the shoulders towards the breast. I found the pulse to be 120, and the respiration difficult and wheezing. The cheeks each exhibited a circumscribed patch of red. I ordered two colocynth pills, and half an ounce of liniment to be applied to the chest. In the evening I found her greatly relieved. The same quantity of liniment was ordered to be applied at bed-time. Next day, on waiting to be summoned to the bed-room, I was surprised to see the patient walk into the parlour. She said that she had passed a comfortable night, and felt perfectly well.

Case 2.—On the 15th of February, 1834, I was summoned to Mrs. ————, a lady apparently about twenty-five years, and far advanced in pregnancy. She said that two days before she had caught cold, and that all the night previous to my visit she had coughed incessantly, and could not lie down, from a feeling of suffocation; she had also a pain in the chest, which she thought was caused by the exertion of coughing. I found the breathing laboured, and the wheezing so audible that I heard it at the bed-room door; pulse 130; face paler than usual. She pressed hard to be bled, and I promised that if she were not relieved when I saw her again, I would comply with her wish. I ordered six drachms of the liniment to be applied. My first visit was at mid-day. I saw her again at seven o'clock in the evening. The cough was then still troublesome, but the respiration was free, and there was a general gentle perspiration. I ordered the liniment to be repeated at bed-time, provided the perspiration had then ceased. A spoonful of laurel-water to be taken occasionally. On the morning of the 16th, I found that she had passed a quiet night. The liniment was not applied, as the perspiration continued almost to the time of my visit. I ordered the bed and body linen to be shifted, and as there was slight wheezing, six drachms of liniment were directed. At six o'clock in the evening I found that great amendment had taken place; the pulse 85; skin cool and moist; no wheezing; cough less troublesome. The liniment was repeated. On the morning of the 17th I learned that she had passed a good night. Nothing was prescribed. At my evening visit she said she had been out of bed all day, and that her cough was but occasionally troublesome. Eight grains of Dover's powder were ordered. On the 18th I was told that she had passed a very good night, and on the 19th she was so well as to permit me to take leave.

The fatal case of croup alluded to at the commencement of these remarks I shall now detail.

Case 3.—Master P. P., aged four years, suddenly awoke before day-break, on the morning of Sunday the 4th of May, 1834, with a violent ringing cough and threatening suffocation, which lasted for a few minutes. He again slept. The ringing cough and some difficulty of breathing were observed when he arose at his usual hour. These continued to annoy him during the day, but he slept tolerably well on the following night. He was very restless during Monday night, and on Tuesday night he did not sleep ten minutes at a time, being awakened seemingly by a feeling of suffocation. At one time, indeed, his parent said, that he was almost choked, being black in the face. I have given the case so far in, as near as possible, their own words. I saw him for the first time at five o'clock p.m., on Wednesday the 7th. I found the breathing very difficult and sonorous; the face flushed; pulse 160; and he was very restless, as if in constant search of a position in which he might breathe freely. I saw four drachms of liniment applied to the breast, neck, and shoulders: in twenty minutes the pulse was reduced to 120. He was again rubbed with about the same quantity of liniment, extending its application to the sides and back, and in ten minutes more the pulse was only 96. The cough by this time had become loose, and had lost its ringing sound, and the respiration was comparatively free, and not in the least degree sonorous. The voice was still hoarse. So far from being restless and uneasy, he now played with some toys on his mother's knee. Two very intelligent ladies who were present and who had seen the dan-

gerous nature of the case, expressed their delight and astonishment at the sudden change. At six o'clock I gave him four grains of calomel; at half past seven two grains more. At eight o'clock the bowels were moved. The cough then continued loose, but the respiration had become impeded, apparently from some detached membranous matter. To aid in ejecting this, a teaspoonful of a solution of tartar-emetic was given every ten minutes. After the fourth dose he vomited and expectorated a good deal of tough membranous-like matter, which relieved the breathing. At ten o'clock I thought it necessary to repeat the emetic, by which more of the same kind of stuff was got rid of, after which he spoke with his natural voice for the first time. At half past eleven he was again rubbed with three drachms of liniment, and at twelve o'clock I left him in a sound sleep, breathing perfectly freely. On the 8th I heard good accounts of my patient, and therefore did not visit him. On the 9th I found him playing about as if nothing had ailed him. On the 14th I had a note stating that the boy seemed not to be so well, and the writer requested to be furnished with some liniment and laxative medicine. I was just starting to see a patient at some distance, and therefore, had my personal attendance been demanded, I could not have been at liberty for some hours. Next day (15th) I was sent for, and found that the boy had, on the 12th, been amusing himself in a wet ploughed field, and that on the evening of that day he was reattacked by the disease. It had made rapid progress for the period, for reasonable hope seemed past, and nothing remained but a *chance* of recovery. The pulse was rapid, but flagging; the skin warmish, not hot; the face pale, and the lips purplish; the respiration was laboured, with wheezing and rattling; the expectoration purulent: he died on the 19th. The treatment was principally directed towards the promotion of free expectoration.

In the above case my plan cannot be said to have failed. On the contrary it succeeded, for at that period of the disease when venesection is insisted on as the only means to be trusted to, its success was conspicuous, and it is as a substitute for blood-letting that I offer it to the attention of the profession. We all deplore the necessity of blood-letting in infancy, for we are not blind to its frequent injurious effects. That necessity does not exist, at least in the cure of croup and bronchitis; this I assert advisedly, and do not fear contradiction from those, even the most wedded to the lancet, who may give my practice a trial.

The best mode of applying the liniment is, after the child is stripped and placed on its back, to pour it from a phial on the breast in such quantity as to make a quick motion of the nurse's hand necessary to prevent its running down the sides. As the greater the surface to which it is applied the better, the bowels and shoulders thus come in for a share of it. A napkin ought to be put over the face, as the ammonia in the liniment is apt to irritate the nostrils and eyes. When I see it applied myself, I pay no regard to quantity. It ought to be plentifully used, for where there is fever it can do no harm, provided the cuticle be entire. Since the publication of my pamphlet, I think I have in a great measure improved the liniment, but I prefer concluding with the original formula, as all the cases published were treated by it.

℞. *Opii* ℥i; *Saponis* ℥ss; *Linim. Camph. C.* ℥viii. Digere per dies aliquot et effunde linimentum.

PETECHIAL ERUPTION
OF
CONTAGIOUS FEVER.

Dr. Eustace presents his respects to the Editor of The Lancet, and begs leave to enclose the Report for the Fever Hospital, Cork Street, Dublin, for last year.

21, Upper Gloucester-st., Dublin,
Aug. 27, 1835.

[The Report extends from the 1st of April 1834 to the 31st of March 1835, during which period the number of patients admitted has been 4524; the average number of days of each patient treated was about seventeen days, and the average expense of each patient was not quite twenty-four shillings. Of this number of patients 4045 were discharged cured, and 422 died. The amount of voluntary annual subscriptions was 260*l.* The rest of the expense of the hospital was chiefly provided for by the parliamenty grant. The following remarks on the petechial eruption of contagious fever, occupy nearly the entire of the observations which are added to the statistics of the hospital.]

In the contagious fever of this country, there is not a more constant symptom than petechial eruption; it may indeed be considered as diagnostic of contagious fever, for I am not aware that there is any other febrile disease of this climate attended with it. I have been led, therefore, in all cases to give very close attention to the state of the petechial eruption

in fever. Too little stress has I think been laid on the consideration of this symptom; it has generally been considered as a matter of little importance, or as merely indicating a greater degree of contagion, or as a symptom of fever from which very little or no practical indication could be drawn. I am not of this opinion, and I beg leave here to introduce a few remarks on these eruptions.

I have constantly observed two forms of petechiæ to attend fever; the one, from its resemblance to the measles, I may call the *morbillous*,—the other is allied to the purpura hæmorrhagica of Willan. The first has been distinctly pointed out by Dr. Huxham, where he says, "that the skin looked sometimes as if it had been marbled or variegated with a colour like that of the measles, but more dull and lurid." This is exactly the appearance of this form of petechiæ; it generally makes its appearance from the fourth to the sixth day of the fever; it is first seen on the shoulders, neck, and breast, whence it spreads over the whole body; the hands and the face are the parts last affected. It is more or less distinct. It is not papular, having only the appearance of being elevated. At an uncertain period it terminates in resolution, leaving no trace on the skin.

The other form, the purpura hæmorrhagica, is found at all periods of the fever, and it is either found pure or mixed with the morbillous. It consists in a number of small ecchymosed spots resembling flea-bites on all parts of the body, frequently very conspicuous on the legs; these spots are of various sizes, having well-defined edges, and passing into larger blotches and vibices. They become gradually paler before they disappear.

From attentive observation of these two forms of petechiæ, and of the fevers with which I have found them respectively connected, I have been led to the conclusion that they are symptomatic of different states of typhus fever. If we suppose fever to consist in a disordered action of the nervous function, to be a disease of the innervation, which I believe it to be, we shall find in support of this opinion that in one of its forms it usually commences with disordered feelings referable to the seat of the ganglionic system and its nerves, in the epigastrium. The organs which derive their nerves of organic life from these ganglia become at the same time disordered in their functions, from the morbid change in their organic sensibility; and that state which has been called gastric or hepatic fever is induced. It is in this form of fever that the *morbillous* petechiæ make their appearance, and denote the fever to be confined to the epigastric centre, to the viscera which derive their nerves from the ganglia of organic life. At this time the epigastrium is invariably painful on pressure, and often to the lightest touch. It is only when the fever has either commenced in the nervous system of the encephalon, or has extended to it from the former—when in either case the functions of sensation and the intellectual functions have become disordered—that the petechial *purpura hæmorrhagica* is to be found.

The most usual fever in this country consists of these two forms blended, commencing a ganglionic fever with *morbillous* petechiæ; in its progress the febrile action extends to the brain, and the *purpural* petechiæ make their appearance, and are either found intermixed with the morbillous, or these latter have become much altered; are of a higher colour, passing from a faint red to purple; are more defined at their edges, and possessing more of the character of ecchymosis; these changes mark a more severe disease. The decline of the petechiæ, when gradual, corresponds with the decrease of the fever; but when it occurs suddenly, symptoms of debility have set in, and it indicates a fatal termination. The symptoms which attend these two forms of contagious fever can never be confounded. The ganglionic fever frequently runs its course without any attendant cerebral disturbance; its symptoms then are, a feeling of uneasiness and pain on pressure at the epigastrium, suppressed secretions, loaded tongue, great thirst, headach in the forehead and temples, *morbillous petechiæ*, frequent pulse, and prostration of strength. When the febrile action has extended to the brain, another set of symptoms take their rise; wakefulness succeeded by coma, muttering, delirium, deafness, imperfect utterance, subsultus, *purpural petechiæ*, blotches and vibices, passive hemorrhages, involuntary discharges, and gangrene, constituting typhus in its worst form. The fever is often in its origin cerebral, and is then attended with purpural petechiæ only, and never in this case, as far as my observation goes, is either intermixed with, or succeeded by, the morbillous; even although the abdominal viscera, as is often the case, should be consecutively attacked in the course of the disease.

Holding these views of fever, I consider the petechial eruption in every case to be diagnostic of the nature of the fever, and as whatever assists our diagnosis is a step gained in the treatment, I shall feel much gratified if the observations of others should confirm my views.

Acting on these principles in the treat-

ment, and not considering fever to be in its proximate cause an inflammatory disease, I avow myself adverse to much blood-letting. Yet considering that unequal distributions of blood take place, and that particular organs frequently suffer from inflammatory action in the course of fever, I have found the abstraction of blood locally, and in small quantity, quite sufficient for the relief of those organs, leaving at the same time the system uninjured by the loss; for I always hold in view the absolute necessity of supporting the strength, to enable the patient to go through the disease. I here subjoin a case of each form of fever from my case-book.

Case of Cerebral Fever with Purpural Petechiæ.

Margaret Hacket, ætat. 35, admitted June 29th. Has been ill nine days. Illness commenced with pain in the head. The body is covered with *purpural* petechiæ and vibices. She has had bleeding from the nose this morning, and some days since she passed bloody stools. The bowels are now confined. Tongue brown; face flushed; respiration hurried; pulse small, tremulous, and cannot be counted; intellect obscure; utterance imperfect.

℞ *Submur. Hydrarg.* gr. vi in pil. statim sum.; *Mist. Purg.* uncias duas post horas tres. To have six ounces of wine.

30. Appearance improved; medicine operated well; discharge from the bowels is black. She moans very much. Petechiæ remain the same, and are very distinct. Pulse 96, and firm.

℞ *Pulv. Rhei* semidrachmam; *Pulv. Scamm.* gr. x; *Carb. Magnes.* scrupulum; *Tinct. Sennæ C.* unciam; *Syr. Simp.* drachmas duas; *Aq. Menth. Pip.* uncias quatuor. Sumat unciam tertiis horis ad alvi solut. Wine, six ounces.

July 2. She has slept some; still continues to moan. Petechiæ the same as yesterday; pulse fuller. Medicine operated; the discharge is more natural. To have six ounces of wine.

3. Improved. Sleeps without moaning; petechiæ still the same; pulse good; tongue tremulous; stools dark-brown and liquid.

℞ *Submur. Hydrarg.* gr. iv in pil. statim sum.; *Mist. Rhei Comp.* unciam post horas tres.

6. Pulse good. Petechiæ paler.

℞ *Spir. Ammon. Arom.* drachmam; *Spir. Ætheris Nitr.* drachmas tres; *Syr.* drachmas duas; *Aq. Cinnam.* uncias quinque c. semisse. St. unciam alternis horis.

7. Petechiæ gone.—8. Much improved in all respects.—13. Bowels slow.

℞ *Mist. Rhei Comp.* uncias duas.

22. Has continued to improve daily.

29. Discharged cured.

The pathological condition of the system concerned in the production of purpural petechiæ, appears to be, a diminished state of vital contractibility; or, in other words, a loss of tone of the solids, from a morbid change in the function of innervation in the brain, giving rise to a passive hyperæmia of the capillaries, not only of the skin but of the whole body; hence arise weak pulse, dusky colour or suffusion of the skin, particularly of the face, and of the conjunctiva, hemorrhages from the mouth, nostrils, and bowels, and sometimes blood is effused within the cranium, producing coma and a fatal termination. In this form of fever (the cerebral) the stools are dark-green or black, from the admixture of effused blood poured out from the villous membrane of the intestines.

Case of Ganglionic Fever with Morbillous Petechiæ.

June 6th. Mary Reilly, ætat. 20, has been ill seven days; is now covered with the *morbillous* petechiæ. The epigastrium is very sore to the touch. Pulse 110. Tongue brown and loaded. Complains of headach. Intellect is clear.

℞ *Submur. Hydrar., P. Scammon.*, aa. gr. iv; *Conserv. Rosar.* q. s. fiat bolus. Statim sumendus. Applic. hirud. iv epigastrio.

7. Petechiæ remain without alteration. Tongue brown. She slept well. Intellect clear. Headach gone. Complains of thirst. Pulse 108.

℞ *Mist. purg.* uncias duas.

8. Medicine operated well. Slept well. Epigastrium nearly free from soreness. Petechiæ the same. Pulse 108.

℞ *Nitratis Potass.* drachmam; *Syr.* drachmas duas; *Aquæ* uncias sex. Sumat unciam alternis horis.

9. Petechiæ going off. Pulse 108.

℞ *Spir. Æth. Nitros.* drachmas tres; *Spir. Ammon. Arom.* drachmam; *Syr.* drachmas duas; *Aq. Menth.* uncias sex. Sumat unciam alternis horis.

10. Petechiæ nearly gone. Pulse 108. Tongue brown. Some soreness of the epigastrium still remains.

℞ *Mist. Rhei Comp.* unciam c. semisse.

11. Medicine operated well. Tongue clean. Slept well. Pulse 96. Petechiæ gone.

R. *Spir. Ammon. Arom.* drachmam; *Syr.* drachmas duas; *Aq. Menth. pip.* uncias quatuor. St. unciam singulis horis.

12. Asks for food. Soreness of epigastrium gone. Pulse 96. Slept well. Repet. mist.

13. Pulse 88. Is convalescent.

A second visitation of that awful scourge the pestilential cholera, to this city, took place this year, and carried off great numbers.

In the cases which came under my care in private practice, benefit was derived from blood-letting, and calomel in frequently repeated doses. Opiates I abstained from, excepting in very small doses, until the appearance of the alvine discharges showed some change in the secretions marked by bilious or more feculent evacuations. Among the remedies employed, croton oil, given in form of a suppository, appeared to assist in effecting those discharges without disturbing the stomach.

Much has been said of a fever which is supposed to attend or to be consecutive of pestilential cholera. That a febrile state should succeed to so great a disturbance of the system as occurs in cholera is quite to be expected, but to say that a fever of a specific character, of which the cholera forms but a symptom, constitutes the disease, is an assertion requiring proof. In those cases which I saw, I was not able to discover any thing more febrile than the concomitants of great debility. In this second visitation of this appalling disease, the relative mortality was found to be considerably diminished, most probably owing to an improved treatment, the result of former experience.

JOHN EUSTACE,
Licentiate of the College of Physicians, and one of the Physicians of the Hospital.

Arrangement of Fevers.—"Latterly, especially in France, the old arrangements have been generally disused, and people are now content to arrange the phenomena of fever under one common head, signalizing any differences which may be found to exist in the *description* rather than in the *titles* of individual cases. I think this the better plan. There can be no doubt that fever is modified by climate, season, and position, as well as by that unknown something to which Sydenham gave the name of the 'reigning constitution.' For years I saw numerous cases of fever with petechiæ, while in other years there were no petechiæ; and, again, during both periods the varieties of fever, in other respects, would be almost as numerous as the cases themselves."

ABSTRACT OF THE EVIDENCE OF

MEMBERS OF THE ROYAL COLLEGE OF SURGEONS IN LONDON,

TAKEN BEFORE THE

PARLIAMENTARY MEDICAL COMMITTEE IN 1834.

EVIDENCE OF

MR. RICHARD DUGARD GRAINGER.

628. "You are teacher of anatomy at the School of Webb-street, in the Borough?"—"I am."

629. "What circumstances led to its formation?"—"The principal circumstance was this. Anatomical teaching, especially dissection, was, in that part of London, insufficient for the demand. The class of pupils, about 400, who at that time attended the Borough Hospital school, had only one demonstrator of anatomy My brother's school was intended to meet that demand, and it soon attracted one of the largest anatomical classes in this metropolis. When he opened the school he was about twenty-three years of age, and I have been attached to it as a teacher about ten years. At the time my brother died, there were in attendance in the course of the twelve months, from 250 to 300 pupils. The school was, two years afterwards, rendered a general school of medicine."

630. "At first were summer or winter courses of anatomy given?"—"The school owes its origin to the deficiency of summer lectures and dissections in the borough. Subsequently, lectures were also given in the winter."

631. "At the time it was at its height, what were the regulations of the College of Surgeons, or of the Company of Apothecaries, for recognising schools and summer courses of lectures?"—"There were then no *exclusive* regulations at all affecting summer lectures."

632. "Do hospital teachers possess any advantages over private teachers?"—"Considerable advantages, from the influence and reputation of the hospitals, independently of their merits as teachers. The students, on their coming to London to attend hospital practice, necessarily present themselves at the hospitals, perhaps to the apothecary of the hospital. Now I have reason to know that in the borough hospitals the apothecary takes this opportunity of informing the students to what lectures they should enter. As the young

men know very little of the merits of any particular school or teacher, the student usually takes the apothecary's advice, and enters for lectures at that hospital, which are at once placed before him. But the interference of some of the officers who enter pupils to the hospital, has not been confined to this: for on students representing to those officers that they had been recommended to attend the lectures of *some other teacher*, the officer has observed, *that he knew nothing about such teacher, and that if they entered to such teacher's course, the hospital surgeons, in going round the wards, would take no notice of them.* There are many other advantages of hospital lecturers which are connected with the constitution of the examining board of the College of Surgeons."

633. "When the Webb-street school came to rise in reputation, was it viewed with *jealousy* by any of the hospital schools?"—"It was. Certain regulations were made by the College of Surgeons very shortly after the decease of my late brother, which threatened the entire suppression of the school; for they declared that the College would receive no certificates of attendance on lectures, except from persons teaching in a school acknowledged by the medical establishment of one of the recognised hospitals; or from persons being physicians or surgeons to any of those hospitals. The regulation also had the effect of rendering unavailable for the student any *summer* courses that he might attend, and *that effect it has had ever since.* The *former* regulation, however, is now abolished."

634. "So that a man ill-provided with the means of teaching, if acknowledged by an hospital school, would be *recognised*; and a man *not* acknowledged by an hospital school, however well provided he might be, might *not be recognised*?"—"Certainly; and, in fact, the school to which I am attached, was *refused to be recognised* as a school of anatomy, under the operation of those regulations, and the Court of Examiners expressly refused the application that was made to them, and not in very courteous terms, to recognise the school *permanently*, as one in which anatomy might be taught. There was also some verbal reply given, which was not quite so courteous, to the effect, that the Court of Examiners *could not acknowledge bricks and mortar.* Therefore, the door to teaching was perfectly closed against all individuals not belonging to or immediately connected with those hospitals; and the only way in which the school could be permanently continued, was, by having it acknowledged, through such an application as was then made, as a school in which anatomy *might* be taught. This appears to me to be an extremely bad principle; but there was at that time *no opening for any teacher whatever, how high soever might have been his qualifications.*"

635. "Does the Court of Examiners work equally well for the *private* teacher as for the *hospital* teacher?"—"Without reference to the individuals that compose it, I should say not; because a very considerable number of the Examiners of the College of Surgeons are themselves either *lecturers* on anatomy and surgery, or they are *teachers* in some of the large hospitals to which schools are attached; and without in the least assuming any improper motives of conduct on the part of any of the examiners, the presumption still might exist that they would be influenced in their *capacity as examiners by their interests as teachers or hospital surgeons.* This has an injurious effect on the students, who suppose that those who go to the College from a private school will not receive the same justice in their examinations as if they came from an hospital school, though I do believe that no distinction has been made (with but few exceptions) between the pupils coming from a private school and the pupils coming from an hospital school." (See, also, paragraph 650.)

636. "Have you ever investigated the proportion of pupils who have been rejected by the Court of Examiners, in order to discover whether the greater proportion has been on the side of the hospital or of the private schools?"—"I have never had any means of making such an examination."

637. "Have you had an opportunity of becoming acquainted with the nature of the examination at the College of Surgeons?"—"So far as the accounts given by the pupils go, I have had very considerable opportunity, and should say that if the examination is to be considered as complete in itself, it is not a sufficient test of the competency of the candidates to practise surgery. Taken in connexion with the examination of the Apothecaries' Company, I should say that the two are a very fair test, generally, of the acquirements of a man before he enters upon the practice of *surgery*."

638. "Does the circumstance of the Company of Apothecaries and the College of Surgeons examining, in part, upon the same subjects tend to distract the attention of students?"—"I think it does."

639. "Does a young man usually go before the Company of Apothecaries first, or the College of Surgeons?"—"Formerly, the Company of Apothecaries first; because they could do so with less preparation; now, I think, it is the reverse, be-

cause they can prepare themselves in a less time for the College of Surgeons."

640. "Have you ever heard from students, that they have been examined at the College of Surgeons solely by men who are very advanced in years?"—"Yes, I have. There are two gentlemen, one of whom is upwards of ninety, and the other upwards of 80; and I know of an instance where those two gentlemen were the examiners."

641. "Does any inconvenience result from this?"—"The general opinion of all persons, I suppose, would be, that after an individual has reached a very advanced age, he could scarcely be competent for such important duties as necessarily devolve upon an examiner of the College of Surgeons. Anatomy being so difficult to retain, and physiology being so constantly advancing (especially of late years, when many parts of physiological science have been almost new made), they certainly would be likely to get into arrear; and I believe the same observation would apply with equal force to surgery. As regards anatomy, there is no science which, in its minutiæ, it is so difficult to retain."

642. "What is the expense, on the average, of a general practitioner's education, from its commencement until he receives his diploma and license?"—"It would, at the lowest, be nearer 500*l.* than 400*l.*, and frequently more. The apprentice fee, I suppose, is from 150*l.* to 200*l.*, and, in general, his board would be included in that sum. That occupies about four years and a half. Then he must reside in London two winters and one summer, about eighteen months; and that, with the necessary expenses of lectures and the fees to the Apothecaries' Company and the College of Surgeons, could not be done, I should think, under 200*l.*, with great economy. That in many cases would include the expense of living and lodging in London. Many young men who come to London, are not overstocked with cash, and they do manage to live upon a very small sum, but with rigid economy."

643. "What sum is given by apprentice pupils at the hospitals?"—"I know some gentlemen who have paid to distinguished surgeons in the Borough 1000*l.* for five years. Some hospital surgeons take less, I have no doubt."

644. "Among the members at large of the College of Surgeons, does there exist any desire for an alteration in the constitution of their Council?"—"I believe that such a feeling does exist. I have taken no public part in ascertaining such feeling, *nor have I ever joined in any proceedings relating to that object*; because I did not conceive that there was *much chance of success*."—Certainly medical reform does not owe much to Mr. R. D. Grainger. If the independent portion of the medical press had adopted the same rule of conduct, medical reform would not only not have had "much chance of success," but its very existence as a question would, even in these days of reform, have had no "whereabout." Yet the necessity for that reform is pretty plainly avowed by Mr. Grainger in his next answers.

645. "Do you think that the self-elective system is a good one?"—"I think that nothing can be worse: it is bad for the reputation of the members of the College as a body, bad for the members individually, bad for the progress of surgery in this country, and bad for the public."

646. "Should there be one or two grades in the profession of surgery?"—"My opinions are strongly in favour of there being, as far as possible, an equality of rank in the members of a liberal profession. If, however, that higher grade be made, it is most important that the mode of electing to it should be pure and above suspicion; that there should be nothing exclusive in it, and depending on favour; that, on the contrary, it should be open to the members of the profession to rise to it by their own exertions; and I for one should protest most strongly against there being any such grade, if the mode of election were not made satisfactory to the members of the profession at large."—And to the public too, let us hope, for the public form a very important party in this question, and we strongly suspect that the community at large would not much approve of a medical reform, or, rather, as it would be, a medical *change*, which tended to inundate the country, and supply the public, with a class of men, as medical practitioners, who came forth from the Board of Examiners as a *lower-grade set*.

647. "Who should be the electors of the governing body of the profession?"—"I think they should consist of all the members of the College."

648. "Ought practitioners of midwifery or pharmacy to be ineligible as members of the governing body?"—"Certainly not, if they are members of the College."

649. "Have you ever heard of a candidate for a diploma being rejected in consequence of the deafness of an examiner?"—"It has been mentioned to me by a private lecturer on anatomy, that to his knowledge, in more than one instance, of a young man who was extremely nervous (as many of them are at that time), one of the examiners, who was deaf, and at the same time rather irritable, not hearing the

answer, has said, 'What does the gentleman say? Speak up, sir.' This, he said, had operated disadvantageously in increasing the nervousness of the young man; but whether such a circumstance has actually led to rejection I do not know. I will mention a case that has come to my own knowledge. Some of those examiners who have lived to an advanced age, have been so little acquainted with the great advances that the science of surgery has made, that they did not know the doctrines of the present day. A few years ago, when it was the practice to have only one examiner to each candidate, I know a case of an extremely industrious student, one of the most industrious students that I ever had, a man that was extremely well qualified to become a member of the College of Surgeons, being rejected by one of those senior members of the Council, upon the following point. The student was asked by the examiner, whether, in case of mortification following a compound fracture, he would think proper to amputate at a time when the line of separation had not been established, and the patient was, apparently, in an extremely critical state. He said, 'Yes;' and for saying 'yes' was rejected. Till within a few years it was the universal rule laid down, that where no line of separation was established, amputation ought not to be performed; because it has been observed, in many cases, that the disease afterwards continued, and the stump mortified. Now it has since been determined, and the credit of establishing this distinction is especially due to Baron Larrey, that in a case of gangrene arising from external violence, if it be evident, from the general state of the case, that the gangrene has been the result of local injury, and that it does not depend upon constitutional causes, the only chance of saving a patient's life, is by amputation, even when no limit has been set to the gangrene; for, to use Larrey's own words, 'the gangrene from external injuries always continues to spread, the infection becomes general, and the patient dies.' This student was rejected for giving an answer in accordance with Larrey's observation. He gave way to the decision for his rejection, because he knew not at the time that he had (as it subsequently appeared that he had) a right of appeal from a single examiner to the whole Court of Examiners. He stated the circumstances to me, and I recommended him to go to the president, Mr. Abernethy, which he did the next morning. Mr. Abernethy told him that his answer was perfectly right; but that since he had acquiesced in the judgment of the court by not appealing (and I even did not know at the time of that right of appeal), there was *no remedy*, and he was obliged to wait for being re-examined for three or six months. Mr. Abernethy added, that if he had appealed on the night before to the Court, he would have taken care that, upon that point, he should not have been rejected."

650. "Are there any decisive objections to teaching anatomy and demonstrating in the summer season?"—"As a general proposition, I do not consider that there are any; in many branches of anatomy, certainly not. I should, on the contrary, consider that there are reasons why certain branches of anatomy *might be prosecuted with more advantage in the summer than in the winter*. First, there are generally fewer pupils in London in the summer; and even supposing that the summer lectures were recognised, I believe there would always be fewer. Next, there generally are, and there would probably always be, fewer lectures to attend. Therefore there would be amongst the students who remained a better supply of subjects, and those who did remain would have more time to spare for the dissecting-room. I should consider, also, that some branches of anatomy might, at that season, be most advantageously pursued. Those gentlemen who had previously attended a winter course, and had thus obtained a general systematic knowledge of anatomy, would, many of them, be extremely desirous to avail themselves of the opportunity of acquiring surgical anatomy in the summer. Moreover, the summer season is extremely favourable for the performance of operations upon the dead body; and as different pupils may perform operations on different parts of the same body on the same day, the objection arising from the state of the weather does not apply, either to surgical anatomy or to operative surgery being conducted in the summer. If summer courses were recognised by the College, I have no doubt that many students would attend them. Dissection now goes on in the summer, in the school to which I am attached, by students who are desirous of improvement; and I wish to state, that since, under the operation of the Anatomy Act, we have had better means of illustration and providing for the wants of the students than formerly, we have been anxious to establish such a course of surgical anatomy and operative surgery as that to which I have referred; and during the last summer such a course was given. It happens now, that the very considerable supply which might be obtained in London during the summer, is lost; and the

interruption to our receiving the supply in summer, may of itself be sufficient to occasion a difficulty when the winter season recommences.

651. "Shortly after the Anatomy Act came into operation, had the private teachers reason to fear, that in consequence of the influence exercised by the hospital schools, they would find difficulty in obtaining a supply?"—"That feeling did exist, I believe, very generally amongst the private teachers, and a meeting took place of the teachers in London, who subscribed to conditions for securing a fair distribution amongst their schools, in proportion to the number of their students; and the hospital influence certainly did operate to a considerable extent against the private teachers. This statement seems to be supported by the facts of the case. The means adopted to obtain a correct return of the number of students at the different schools was the register of students at Apothecaries' Hall; because it was known that the great majority of the students in London intend to present themselves for examination there, and therefore do register their names at the Hall. This, however, is not an unexceptionable test; because it is evident that more names may be registered at the Apothecaries' Hall, as belonging to any one school in the metropolis, than actually do attend. I am bound to state, in justice to the inspector of anatomy, that I believe every exertion has been made by him to carry into the fullest operation the principle of equitable distribution adopted by the teachers. But impediments have occurred to the carrying this principle entirely into effect, the greatest cause of difficulty being, that the teachers in the hospital schools have, by their influence, not as teachers only, but as the representatives of those large corporations, the hospitals, secured the exclusive supply in many of the metropolitan parishes."

652. "By how many examiners do you understand that candidates are usually examined at the College of Surgeons?"—"I believe in general there are *two* examiners to each pupil."

653. "Do you wish to state any thing further to the Committee?"—"I wish to state, as a private teacher, that independently of any objections which might be urged against the Council of the College of Surgeons, from its mode of election, and other objections on general grounds, the majority being generally composed of *hospital teachers*, either in the capacity of lecturers or surgeons of the metropolitan hospitals, they labour under the objection which would apply to any person being an *examiner*, who was at the same time a *teacher*. Teaching and examining ought to be kept quite distinct from each other; and *under no circumstances ought a teacher to be an examiner in the medical profession.* But independently of that general objection, the private teachers have this to complain of: that those teachers who do find admission into the examining board of the College of Surgeons, are, *exclusively, hospital teachers*; and that, consequently, a presumption may exist, and *to my knowledge has existed*,* that the examiners may be influenced, in their capacity as examiners, *by their interests as teachers in the hospitals.* Only one class of teachers are admitted, all private teachers having been excluded, from the first institution of the examining board. This being the case, a suspicion may arise that the examination is not fairly conducted towards the pupils of private schools. I know, for instance, that it has been stated, in consequence of opinions which I have expressed having got abroad, that there would be a more strict examination of the pupils from the school of a private teacher, than of the pupils from an hospital school. Now the mere supposition of such a thing, whether it be well or ill founded, is calculated to inflict a severe injury upon the teachers of private schools."

654. "Can you mention the names of any private teachers, who, from their standing, were entitled to be admitted to the Council of the College, and yet have never been admitted?"—"The first that presents himself to my recollection is the late Mr. Brookes, who may be said to have had an European reputation. He was a most fit and proper man, if it were proper to have had *any* teacher in the board. I should consider that Mr. Carpue was another."

EVIDENCE OF

MR. JOSEPH CONSTANTINE CARPUE.

655. "Previous to the regulations of the College of 1824, did you give summer courses of lectures?"—"Always, but those regulations put my lectures down entirely, though I considered the summer course the best course, because it is a continuation of learning. The students are nearly perfect, and that makes them completely so. If they left off when the summer came, they would forget much of what they had already learned, become disgusted with the profession altogether, and, perhaps, never become anatomists at all.

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* The reply in paragraph 633 should be read in connexion with this reply.

Ever since 1824 the College has omitted to recognise summer courses."

656. "Were you acquainted with the late Mr. Brookes?"—"Intimately."

657. "Was he injured by these regulations?"—"I believe they ruined him; for we are now making a subscription for his funeral. He died without a single shilling. Previous to these regulations he had a very considerable class. He had never less than 120, and often as many as 150 pupils."

658. "Was Mr. Brookes ever elected by the Council of the College of Surgeons a member of their body?"—"Never, though from his acquirements, his ardour, and his celebrated museum, I think you can scarce find a man so well qualified, and it has been a great loss to surgery that that poor man was so ill used. It is considered so on the continent. For I have been to every school on the continent; and they all deplore the fate of Mr. Brookes. He stands there very high indeed."

659. "What was the impression upon your mind as to the cause of his exclusion?"—"I considered the Council did not like to let in any but the friends, allies, and connexions, of their own body. I believe that his belonging to a private, and not to an hospital school, caused his exclusion from the Council."

660. "Were you passed over by the Council?"—"I was."

661. "Did you ever hear why?"—"Mr. Guthrie said I was passed over, *because of the manner in which I was paid by my pupils*, —half the fee on the pupil's entering, and the remaining half on his passing the College. I beg leave to say, that I never gave a certificate to a pupil until he could demonstrate all the parts of the human subject, and perform all the operations in surgery."

661*. "How many surgeons *in London* practise *pure* surgery?"—"Not any thing like a hundred, I should think, and very few out of London. There is not practice for them; for that is now taken by as well-informed gentlemen who practise pharmacy also. I do not know of any difference in their education. They attend the same lectures, and the same hospitals; and I cannot see how practice in pharmacy can hurt them. On the contrary, I think it is of great advantage to them."

662. "To what sort of practice is a professional man required to confine himself, in order to be eligible as a member of the Council?"—"I know nothing of the College. I am so disgusted with it altogether, that I have not been near it for many years. There are 10,000 members governed by 21."

663. "Is not a large share of the practice of those who call themselves pure surgeons, rather medical than surgical?"—"The surgeons in the country are now so well qualified, that very few operations are now brought to town. Hence, those London surgeons are compelled to practise as physicians."

664. "But if they were to act strictly *according to their own by-laws*, would not most of them be found *disqualified to sit upon the Council?*"—"Most of them, I think."

665. "If all the members of the profession were constituted electors, and were all also made eligible as councillors, do you believe that the choice of Councillors would usually fall upon the same class of men as are now chosen?"—"I think it would fall upon men who had had much practice and experience; such, for example, as the gentlemen who are or have been surgeons to Greenwich Hospital, or to the principal military and naval hospitals, who have served in the navy and army. Their knowledge I consider equal to the knowledge of any of those gentlemen who officiate at the London hospitals."

666. "Who ought to be electors?"—"I really think that every member of the College is qualified to give expression to his opinion. If he is not properly qualified to practise, he ought not to have power over the lives of his fellow-creatures placed in his hands; but if he merits having *that* power, he merits, at least, having *a vote*."

667. "Under a system of free election, would a Council, so chosen, be superior or inferior to the Council as now chosen?"—"I think much superior. I beg leave to observe, that the present mode of examination *is not such as to afford any criterion whether a man knows anatomy or surgery*. It is nothing but question and answer. Now my friend Sir A. Cooper said nothing was so easy as to detect a young man who had been *ground*; he said that he might know the first muscle, and what was next beneath it; but that so soon as you began thoroughly to unfold the body, and to question him about what was situated interiorly, he would be at a loss. Now *that is not the case*; for there are ingenious works published, which lead to a particular knowledge of different parts of anatomy. Mr. Tuson has published a work upon myology, where one muscle is taken off, and you see the under muscle; and you take that off, and you see another, and another, till you come to the bone. Then Mr. Foster, an ingenious young man, has published another work, which is worth the Committee's seeing. It is an

arm, where you first see the common integument, with all the nerves. You then see the cutaneous vessels, then the muscles, the arteries, the veins, and every muscle, and every part, till you come to the bone; and then the bone, with all its ligaments. *Any man that would study works like these, could pass an examination at our College, and yet not, in my mind, be by any means fit to be a surgeon.* Therefore I am sure that Sir A. Cooper could not have recollected that there were works like these. I am told, moreover, that some gentleman from abroad has brought with him a curious preparation, where first one part, and then another and another, are taken off, every part being accurately described; and his present Majesty, I am informed, has made the College a present of such a preparation. Now it is quite clear that a man might learn the names and relative situation of the parts from such a preparation; but he cannot be an anatomist or a surgeon, without passing a great deal of time in the dissecting room: there is no other way of being so. I beg leave also to observe, that I think all the examinations ought to be *in public:* and to be on a dead body; and then no mistake could occur. For when a man was examined in public upon a dead body, and was told to demonstrate the brain, or to cut and demonstrate such parts of the body, then he could not deceive you. I would not give the hundredth part of a pin for a diploma otherwise obtained; but the man who had proved his capacity in this manner, should be eligible to any situation. I should extend the publicity to the members of the learned profession."

668. "Do you approve of the general practitioner charging for medicine instead of attendance?"—"No; he ought to be paid for visiting."

669. "Is there anything further that you wish to state?"—"I beg leave to say, that I have attended the different classes upon the Continent; and at Berlin, Dr. Graeff desired me to see his class, and one young man was desired to demonstrate some eyes, which he did with great ability. He was then desired to operate upon living eyes, and a patient was brought in, when he performed an operation to admiration. This was previous to his examination for a diploma. Another patient was then brought in. It was a nose case, an operation for restoring the nose having already been performed on the patient. Dr. Graeff said, 'Mr. Carpue, I wish to have your opinion on this case, as it is your operation,' referring to my having been the first to perform the Indian operation in Europe. I, supposing that it was Dr. Graeff who had performed the operation, as he had translated my treatise on the subject, and also published a 4to. volume upon it, replied, 'Dr. Graeff, this does you great credit.' He answered, 'I did not perform this operation; it was performed by this young man,' pointing out one of his pupils, 'and we never let a young man practise, unless he has first performed operations in public.' And I beg to say to the Committee that unless this is the case in England, it will never be well done. Here, men who are chosen surgeons to public hospitals, remain in office for life. Now the last war was the means of forming some good surgeons; but if there is no war, and the surgeon, once elected to a public hospital, is to continue in office *for life*, how are surgeons to gain experience by practice, and to become qualified for the business of their profession? At Edinburgh, hospital surgeons are appointed but for three years; and I trust that something of that kind will take place here; for the people of the country ought to be well attended; and if the Edinburgh plan was introduced here, it would be a means of providing that the people were well attended.

670. "You think it would be preferable, as a system, to appoint temporary rather than permanent surgeons?"—"You would in that case have more good surgeons. Now you have but few. I was desired by the late King to give him any information I could concerning improvements in surgery, and I had the honour of teaching him certain parts of anatomy. He was very fond of anatomy and surgery. I wished to establish a general hospital, on a new principle, where Hungerford Market is now built. It was to be open from morning till night; at every hour a surgeon was to attend, and any person was to receive assistance whenever he chose to apply. A person may now be dangerously ill, and his friends may be running about the town, for hours together, in search of a recommendation to an hospital. An hospital of the kind I proposed would be of great advantage to the profession, for it would employ so many surgeons and physicians, that it would be of great importance to the public. His Majesty was much pleased with the plan, and sent me to Lord Liverpool with it, but his lordship said that the country had not the money to spare. His Majesty, however, authorized me to use his name, whenever it might serve the object. The Council ought to recognise certificates from naval and military hospitals. There is a gentleman in this room, Sir Richard Dobson, surgeon of Greenwich

Hospital, who has had hundreds of cases of erysipelas, and who, during a practice of twenty or thirty years, has never lost one case of the kind by his mode of treatment. His treatment is by puncture, a method not adopted in any London hospital."

671. "Do you mean to say that the Council does not recognise certificates from naval and military hospitals, such as Greenwich and Haslar, or the York Hospital?"—"I believe that it does not. When I was surgeon to the York Hospital at Chelsea, one day we had 1000 cases of gunshot wounds, and yet we could never get the Council to recognise a certificate of a student having attended there. The York Hospital is now at Chatham, and they have made a collection of preparations."

672. "Is it not the finest collection of morbid anatomy that exists, from the accurate history they have of the cases to which the preparations belonged?"—"It is a very fine collection."

673. "And certificates from York Hospital would not be received at the College?"—"No, they would not."

CONDUCT OF THE

POOR-LAW COMMISSIONERS AT COSFORD.

To the Right Honourable Viscount LORD MELBOURNE.

MY LORD,—I take the liberty to address your lordship in consequence of the very extraordinary conduct pursued by the poor-law commissioners against medical practitioners. Having heard of their proceedings in other parts of the kingdom, I attended a meeting held in the Hundred of Cosford, at which meeting a proposition was made to reduce the salary of the officiating surgeons, and at the same time to add very considerably to their labours. This proposal did not originate either with the resident gentry or with the agriculturists: on the contrary some of them had the liberality to oppose a measure which they considered to be most arbitrary and unjust towards the medical men. In the instance of the Cosford Hundred, I hope I shall only have to state the nature of the new regulations to convince your lordship of the truth of my assertion, that they are both unjust and arbitrary as they relate to the medical officers, and oppressive and cruel as they respect the pauper community. By the new regulations three surgeons are required to attend to the poor of thirty-two parishes, embracing an enormous extent of country, including a population of 20,000 inhabitants, at an annual salary of eighty pounds each. For this paltry sum, they are to supply medicine and to give attendance not only to their own poor, but also to all casual paupers within the district. They are also to vaccinate, to furnish surgical instruments, and (will it be credited?) to attend in all cases of midwifery, without any extra emolument.

By the injudicious addition of parishes, the Hundred is rendered so extensive, that in some cases the surgeon will have to ride fifteen miles to see his patients. When this objection was made by a clergyman who was present, the reply of one of the commissioners, a Mr. Mett, was made in the following most insulting terms:—"Let him get upon a ten-pound horse, "and ride from morning till night." Is this the language, my Lord, which you authorize your officers to employ towards that enlightened and most respectable body of men, the country medical practitioners? In the case of the Cosford Hundred, one of the medical officers, a man with a young and numerous family, influenced probably by the fear of having a stranger thrust into his neighbourhood, compromised the dignity of his profession and his fair character with his professional brethren, by accepting the humiliating terms; but the other two surgeons rejected the proposal with merited contempt. Their refusal was met by the commissioners with a threat of bringing down a stranger, and an advertisement to that effect has already made its appearance in the Suffolk papers.

That there are needy and abject men in every profession who will sell themselves to any slavish service, there can be no question; but that there is no man who can properly perform the *duties* of the office for so inadequate a remuneration, I am fully persuaded; and neglect of the sick poor will be the certain consequence. Even were a medical man content to ride about all day upon a ten-pound horse, how are the poor to send fifteen miles for their medicines? Be assured, my Lord, that these injudicious arrangements will be found to effect only paltry savings, which, by increasing the hardships of the poor, will at the same time increase their discontent; for the poor, my Lord, are attached to their medical attendants, by whom they are treated with great kindness and consideration.

I now beg permission to state to your Lordship my own position and that of my brother surgeons in the Hundred of Stow. This Hundred contains fourteen parishes,

thickly populated, and we attend the poor of these parishes at an annual salary of fifty-six pounds each, exclusive of midwifery, in which however we are never employed, except in cases of danger or difficulty, when we receive a fee of one guinea, but these cases do not average above twenty in the year. I affirm, my Lord, that the salary I receive is barely sufficient to furnish medicines and a horse, and leaves me no compensation for the labour of attendance; and my own case affords a fair example of that of the country practitioners in general.

One reason assigned by the commissioners for the reduction of the salaries of the medical officers is the low state of the agricultural interest. I beg to assure your Lordship, that no class of men are greater sufferers by the agricultural depression than the medical profession. Most sincerely do we feel for the distresses of the agriculturists; and we not only sympathize with them, but we suffer with them. We have partial losses—we have entire losses—we never enforce our claims by legal proceedings, and when they have nothing to pay with, we attend them, and we kindly attend them still. There exists a perfect good will, and a perfect friendliness of feeling, between the country practitioners and the community amongst whom and by whom we live: and shall the agents of a reform administration—shall these men—be permitted to sever the ties which bind us to each other, and to sow discord amongst us by sending mean, abject, and needy strangers to supplant us in our connexions, and to take away our bread, because we will not tamely submit to their most unjust and insulting propositions? Lastly, my Lord, have you considered the consequences likely to result from persecuting a class of men so numerous and influential throughout the country? I know that the feeling of *disgust* at the proceedings of the commissioners is DEEP and universal throughout the medical profession, amongst whom are some of the warmest supporters of the present administration. I trust, my Lord, that this simple statement of facts will induce your Lordship to put an end to the arbitrary proceedings of the commissioners, and in this trust I remain, what I have ever been, a firm supporter of your Lordship's administration, and

Your Lordship's most obedient,
Humble Servant,

J. BEDINGFIELD.

Stowmarket, August 27, 1835.

The Archives Générales for June and July.

THE abundance of matter which we have latterly extracted from the German journals, has prevented us from paying more than a cursory attention to the French periodicals, whose analysis, however, we now resume with the above numbers, which contain—

1st. A Memoir on the Diseases of the Lymphatic System. By Professor Velpeau.

2nd. On the Chemical Characters of the Saliva, considered as a means of Diagnosis in certain Affections of the Stomach (concluded). By M. Donné.

3rd. On Dysentery (the conclusion of an article). By Dr. Thomas.

4th. On the Therapeutic Influence of Atmospheric Heat. By M. Guyot. (When the author next takes up this subject, we would recommend him to experiment with the vapour of heated water, instead of dry air. The former is produced with infinitely less trouble and expense, while the addition of moisture to heat at once exercises a most agreeable impression on the part, and a much more efficacious influence on inflammation.)

5th. Congenital Luxations of the Femur. By Dr. Pravaz.

2. DIAGNOSTIC CHARACTERS OF SALIVA.

Without doubt the progress of medicine has been advanced immeasurably by the labours of several modern physicians in the field of pathological anatomy. A number of morbid changes in the solids, before neglected or little understood, have been studied with the utmost accuracy, and traced through their different phases to the original point whence the disease has set out; but while we accord this eulogium to modern pathology, we must at the same time admit, that one branch, if not as interesting, at least more obscure and difficult, has been treated with comparative neglect, and that, if we except the investigations of a few medical chemists, our knowledge of the changes produced on the fluids of the human body during or by disease, has advanced very little beyond that transmitted to us by the humoral pathologists of the old school. It is unnecessary for us to dwell on the results which might be obtained by a more careful investigation of the fluids secreted or excreted during disease. We

might quote as an example our countryman Prout, or the light thrown on the nature of Asiatic cholera by the experiments of Dr. O'Shaughnessy. The necessity of examining the fluids as well as the solids has long struck the mind of M. Donné, chef de clinique to the faculty of medicine. For several years he has directed his studies to chemical pathology, of which the present memoir is one of the results.

One of the most difficult points in medicine (that in which it most differs from surgery, so called) is to distinguish, in certain cases, mere functional derangement from organic disease. Thus, to take an example from the phenomena of continued fever, most writers (and amongst them one of the most accurate, M. Andral) are compelled to admit that we cannot establish any fixed connexion between the nausea and vomiting &c., and a determined condition of the stomach, appreciable in the dead body. Sometimes they coexist with manifest inflammation of the stomach; at others the vomiting &c. have been excessively violent; while the stomach, examined after death, exhibits no trace whatever of inflammation or irritative congestion.

The above remarks of M. Andral are equally applicable to a great number of cases, where the conscientious physician finds it almost impossible to decide whether the symptoms before him should be attributed to irritation of an inflammatory kind, or to a far different cause, which, in the absence of precise ideas, we are accustomed to call "gastric derangement." Redness of the tongue, thirst, epigastric pain, and fever, are not symptoms sufficiently constant to enable us with confidence to affirm the existence of an inflammatory or sub-inflammatory state, and the treatment of these symptoms must in consequence give rise to embarrassment and uncertainty in a great variety of cases. We should, therefore, make an important progress if we could arrive at the discovery of any physical sign by which to distinguish irritation and inflammation of the stomach from other conditions, different in their nature, though giving rise to nearly the same symptoms. M. Donné thinks that he has discovered this si in the saliva, which, according to him, invariably presents an acid character whenever the stomach is affected with inflammation or irritation.

Before we can draw any conclusions from the saliva during a state of disease, it is evidently necessary to determine its normal character and properties during health. M. Magendie regards this fluid as passing from an acid to a neutral or alkaline state in a short space of time:—"Before we commence eating," says he, "the saliva is acid; during mastication it becomes alkaline, and sometimes the acidity disappears before the first mouthful of food has been swallowed." However, Tiedemann and Gemelin, whose experiments deserve more confidence, affirm that the saliva and mucus of the œsophagus are in all cases *alkaline*, not only in man, but in all classes of animals where these fluids exist. M. Donné has made extensive experiments on the saliva in man and animals, to determine its properties under various conditions, and has found this fluid constantly *alkaline* before, after, and during meals, whenever the functions of the stomach were regularly performed. However, it is well known, that in many individuals the saliva presents the characters of acidity; but in all these cases, the observations of the author lead him to conclude that the anormal state of the secretion is connected with an anormal condition of the stomach. The process which he employs to determine the chemical character of the saliva is very simple; a few slips of turnsole paper suffice; some preserve their original blue colour, others are reddened by an acid: the first serve to determine the acidity of the saliva, the second or red slips measure its alkalinity. When the saliva is in its normal condition, the strip of red paper applied to the tongue assumes a blue tint, while, in the contrary case, it remains unaltered: this is the first step to be taken: if we find the saliva has lost its alkaline or normal character, we try the blue paper, and find either that the blue colour does not change (a neutral state), or changes from blue to red, which indicates an acid condition of the saliva. It is necessary to observe and take into account the slight tint produced in the blue colour by the

application of saliva, even in a normal state; this depends on humidity, which always changes a little the appearance of colours, but the difference may be readily distinguished by a little habit.

Having established the alkaline nature of the saliva in a healthy state, and described the means of determining its several properties, the author applies himself to the practical part of the question, viz., with what condition of the stomach is the change of the saliva from an alkaline to an acid state connected? Does this change coincide constantly with any fixed and determinate condition?

The above questions can only be answered by an extensive number of observations on the human body in a state of disease: this M. Donné has undertaken for the last two years at the hospital of *La Charité*, and the result of his experiments tends to show in a manner nearly conclusive, that acidity of the saliva coincides with an inflammatory or irritative condition of the stomach, as contradistinguished from mere functional disorder (*embarras gastrique*). His observations may be distinguished into two series, the first comprehending those cases where the alterations of the stomach, indicated by acidity of the saliva and other symptoms, could be verified after death: in the second series are included the cases where the alteration of the stomach could only be deduced from the march of the disease, and the effect of the remedies employed. Under the first, the author details four cases, selected from a great number which he has observed during the last two years; in all these an acid state of the saliva coincided with lesions of the stomach, generally attributed by pathologists to inflammation, as softening of the mucous membrane, with capillary injection &c. The second series also comprises four cases, but as the nature of the disease was determined merely from external symptoms, they are not so conclusive as the former; we may observe, however, that the symptoms of gastritis in its various degrees existed, such as acute pain in the region of the stomach, with red, dry tongue, nausea, vomiting, fever, and loss of strength: in three cases, as in the former, the salivary fluid was acid, and exhibited during the course of the disease various changes from acidity to a neutral or alkaline state, according to the effects produced by bleeding, rest, and other therapeutic agents on the intensity of the symptoms. The last case cited by M. Donné may serve as an example for the rest.

Case.—A young girl, nineteen years of age, was brought into La Charité on the 27th April 1833; she had swallowed a glass of *eau de javelle* (solution of chlorine) in a love fit, and was immediately seized with severe vomiting: the tongue became dry and red. When M. Donné saw her for the first time, she had slight fever, and the epigastrium was somewhat sensible to the touch; the *saliva was strongly acid*. After a treatment with emollients for a few days, the tongue became moist; the patient got evidently better; the saliva became at first neuter, and then assumed, as the cure was more complete, its normal character of alkalinity.

MEDICAL SECTION
OF THE
BRITISH ASSOCIATION.

A CONSIDERABLE portion of our pages was last week occupied with remarks on the proceedings of the *British Association* during the recent visit of its members to Dublin. Much interest has, in consequence, we find been excited in the profession respecting the objects and tendency of the Association, and towards the medical section in particular. This circumstance induces us to take advantage of a report of the business transacted in that section, which has been drawn up for the September number of the *Dublin Medical Journal*, an early copy of which has been forwarded to us, and from which, therefore, we design to abstract such an account of the proceedings as will enable our readers to judge of their character, and derive a knowledge of the various information which they have elicited.

On reviewing the subjects brought under the consideration of the section, some reflections have occurred to us which we shall take this opportunity of committing to print. It is evident that many of the papers might have found their way before the profession with equal, if not greater

advantage, through the medium of already existing sources of publicity. The medical periodicals and long-established societies are always open to useful communications, and for a medical man to wait a whole year for the honour or the *eclat* of perusing a purely professional memoir at the meeting of a moveable association, is what cannot be regarded either as a necessary or a judicious course of proceeding, and the pomp and circumstance which attend it are neither reasonable nor in keeping with the proper habits of scientific men.

In what respect, then, can the medical section of the Association prove valuable as the resort of medical investigators who are prepared to submit discoveries to the notice of their professional brethren and the public? Why, simply, when it is desirable to make those discoveries the test of that superior criticism which they are not likely to obtain by any other mode of communication, or at any rate for a long period of time.

Of what kind are such discoveries as these? Chiefly those which rank in the department of physiology. And why especially in that branch of medical science? First, because it involves inquiries which are pursued by men of such a higher order of mind as those who are likely to attend the long-interval meetings of a great scientific association, and who are not likely to be assembled elsewhere in such large numbers; and, secondly, because facts and principles which peculiarly bear on and illustrate that department of medicine form the study of all men of extensive scientific education. Thus the discoverers in our profession have offered to them in this Association a degree of assistance in seeking for truth in their researches, which they cannot expect to derive in their own professional coteries.

To obtain in the medical section the comments and criticism of the numerous philosophers who attend the meetings of the *British Association*, is, in this respect, highly desirable. Yet that section will hardly be attended by non-professional men of science, if the judgement of *a practitioner in medicine* be an essential point n estimating the memoirs read before it. This view seems to be supported by the fact, that throughout the list of names of gentlemen who took part in the discussions, we do not observe, in the report in the *Dublin Journal*, one name to which the insignium either of M.D. or M.R.C.S. does not attach.

The medical section held five sittings on five distinct days, beginning with Monday the 10th of August. On the first day the chair was taken by Mr. COLLES, one of the Vice Presidents. Each of the other sittings was conducted by the President, Dr. PRICHARD. The subjects which occupied attention were the following, introduced by the gentlemen whose names are subjoined to the titles:—

First Day.—The internal use of the Chloride of Soda in Fever. Dr. Graves.

The Circulating Organs in Diving Animals. Dr. Houston.

Second Day.—The Motions and Sounds of the Heart. A Committee.

Third Day.—The Pulse. Dr. M'Donnell.

Bones in the Hearts of some Ruminantia. Dr. Harrison.

Hydatids in the Omentum of the Axis Deer. Dr. Houston.

Entozoa in Human Muscles. Dr. Harrison.

Mammary Glands of the Cetacea. Dr. Jacob.

Midwifery of the Dublin Lying-in Hospital. Dr. Collins.

Atmospheric Pressure in Disease. Sir James Murray.

Fourth Day.—Poisoning. Dr. Roupel.

Vital properties of Arteries leading to Inflamed Parts. Dr. Alison.

Asphyxia. Dr. Alison.

Partial Amputation of the Foot. Mr. Whatton.

Some Diseases of the Thorax. Dr. Stokes.

Purulent Ophthalmia in Infants. Dr. Kennedy.

A Cæsarean Operation. Mr. Knowles.

The Bruit de Soufflet. Dr. Corrigan.

Fifth Day.—The Intestinal Canal. Dr. O'Beirne.

The Effects of Cold and Climate. Dr. Osborne.

A Case of Malformation. Dr. Hutton.

Aneurysm by Anastomosis. Mr. Adams.

The application of Galvanism in Disease.

Union of fractured neck of the Femur. Mr. Harris.

The Lacteals, Lymphatics, and Veins, employed in Absorption. Dr. Handyside.

Of these papers we commence with the first:—

CHLORIDE OF SODA IN FEVER.

The paper on this subject was read by Dr. Robert Graves, who spoke of the remedy in the following terms:—

The chloride of soda was first recommended in fever in 1827, by Dr. Robert Reid of this city, but had never been adopted by the profession, when I commenced a series of chemical experiments on its efficacy in 1832. Since that time I have employed it in many hundred cases of fever, and, on the whole, with satisfactory results. Many persons also, who have used it in the manner recommended, have expressed themselves in high terms of its utility. I have never given it in fever, except when the first stage is speedily followed by debility, and most commonly at a later period, when the well-known group of symptoms generally called typhus are present. In inflammatory fever, in simple, continued, or in nervous fever, I have never ordered this remedy; nor do I believe it to be of the least use in controlling the febrile excitement of ague or of hectic. Again, where fever is the consequence of some local inflammation, whether arising spontaneously or from an injury, the chloride of soda is quite inapplicable.

It is, in fact, only in that state of fever in which the disease may be termed simple, and where there are no local complications, that general remedial agents, such as the chloride of soda, can be employed. I was first induced to try the chloride of soda internally on an extensive scale, by the perusal of a very interesting pamphlet, written by Dr. Lawrence, the present archbishop of Cashel, a celebrated oriental scholar and an excellent chemist, published about three years ago, which may be strongly recommended to the notice of the profession. The mode in which I prescribe it is in doses of from fifteen to twenty drops every fourth hour, in an ounce of water or camphor mixture. How it acts I will not pretend to explain; it is sufficient to say, that there is no remedy from which, in such cases, such unequivocal benefit is derived. It operates energetically, though not very rapidly, in controlling many of those symptoms which create most alarm. It seems to counteract the tendency to tympanitis, to correct the fœtor of the excretions, to prevent collapse, to promote a return to a healthy state of the functions of the skin, bowels, and kidneys; in fact, it appears admirably calculated to meet most of the bad effects of low putrid fever. Of course it will fail, like all other remedies, when the disease has reached a certain point of intensity in individual cases. This, however, is no argument against the employment of a remedy of extensive utility and unquestionable value. This remedy has been extensively tried in fever by Chomel, with great success, and that excellent physician is still, I believe, engaged in making further clinical experiments on the subject. Dr. Dor, of Marseilles, has published several cases of typhus, in which the chloride of soda was found beneficial in 1833. We have in Dublin always adopted the precaution of diminishing, as soon as possible, the strength and frequency of the doses. It was never continued beyond six or seven days. Dr. William Stokes has also found it gradually but steadily remove all the bad symptoms, and in all cases the patients had most favourable convalescences. The solution used was that which is generally considered to be a saturated solution. Wine, stimulants, and nutriment, were also given with it, according to the exigencies of the case.

MOTIONS AND SOUNDS OF THE HEART.

We pass over, for the present, the second paper, to notice the third, which was read by Dr. Harrison, and consisted of the Report of a Committee on the Motions and Sounds of the Heart. The formation of this Committee in Dublin was recommended by the British Association, and Dr. Macartney having been requested to select a number of gentlemen for that purpose, the gentlemen so appointed, whose names are signed to this report, acted on the committee, and attended at the experiments. The Committee met several times, and having considered the different opinions hitherto advanced on the subject, proceeded to institute a series of experiments, the subjects of which were generally young calves, in which animals the heart is sufficiently large to admit of the motions and sounds being accurately observed, while their early age is favourable to the prolongation of the experiment, as it has been ascertained that the vitality of the different organs is more enduring, and less influenced by injuries to the individual, in animals at a very early age, than in those of a maturer growth. The pulse varied in the subjects for experiment from 76 to 80 beats.

The animals were prepared in the following manner:—a tube connected with a pair of bellows was inserted into the trachea, and the sensibility of the animals having been destroyed by a blow on the forehead, artificial respiration was commenced, by means of which the heart was enabled to continue its pulsations for a period varying in different subjects from one hour to two. Prussic acid, in a quantity sufficient to suspend sensibility, de-

stroyed, in a few minutes, the motion in the heart. We have not now room to detail the experiments, but

The reporters conclude by saying:—From the experiments on the sounds of the heart, it appears to follow:—1. That the sounds are not produced by the contact of the ventricles with the sternum or ribs, but are caused by motions within the heart and its vessels. 2. That the sternum and front of the thorax, by their contact with the ventricles, increase the audibleness of the sounds. 3. That the first sound is connected with the ventricular systole, and coincides with it in duration. 4. That the cause of the first sound is one which begins and ends with the ventricular systole, and is in constant operation during the continuance of that systole. 5. That it does not depend on the closing of the auriculo-ventricular valves at the commencement of the systole, because such movement of the valves takes place only at the commencement of the systole, and is of much shorter duration than the systole. 6. That it is not produced by the friction of the internal surfaces of the ventricles against each other, as such friction cannot exist until the blood has been expelled from the ventricles, whereas the first sound commences with the beginning of the ventricular systole. 7. That it is produced either by the rapid passage of the blood over the irregular internal surfaces of the ventricles on its way towards the mouths of the arteries, or by the *bruit musculaire* of the ventricles, or probably by both these causes. 8. That the second sound coincides with the termination of the ventricular systole, and requires for its production the integrity of the semilunar valves of the aorta and pulmonary artery, and seems to be caused by the sudden check given by the action of these valves to the motion of the columns of blood driven towards the heart after each ventricular systole by the elasticity of the arterial trunks.

The Committee wish, in concluding this Report, to express their opinion, that although much light has been thrown on the subject of the motions and sounds of the heart, by recent investigations, here and elsewhere, the nature of the inquiry is such as renders it difficult in many instances to arrive at satisfactory conclusions. They also think that the subject, from its importance, whether in a practical view, or as an object of philosophical inquiry, is deserving of further investigation.

Signed,

Robert Adams, A.M., Jervis-street Hospital.
Robert Law, A.M., M.D., Sir P. Dun's Hospital.
George Greene, A.B., M.D., Lecturer on Medicine.
Ephraim M'Dowel, M.D., M.R.I.A., Surgeon to the House of Industry.
Bruce Joy, M.D.
John Nolan, M.D., Demonstrator of Anatomy.
Evory Kennedy, M.D., Lying-in Hospital.
Hugh Carlile, A.B., Demonstrator of Anatomy.

After the Report was concluded, Dr. Williams said he would state the results of his experiments on the subject. Some of the details mentioned by the Committee were confirmatory of these results, others not. His opinions, however, being already before the public, it must be sufficient here to state, that from his experiments he would conclude: 1st. That the first sound is not caused by a rush of blood into the arteries, as shown by several of the observations detailed. 2nd. That the first sound is not caused by the closing of the auriculo-ventricular valves, as shown by those observations in which it continued, though the closure of these valves was partially or completely prevented. 3rd. That the first sound is not produced by the collision of the particles of fluid in the ventricles. 4th. *That the first sound is produced by muscular contraction.* 5th. That the *second sound is produced by the reaction of the arterial columns of blood tightening the semilunar valves at the ventricular systole.* Dr. Williams referred to various observations on the foregoing experiments in proof of this view of the question. In illustration, he remarked, that if a fold of linen or of a handkerchief be suddenly tightened, a sound will be produced which may serve to explain the second sound. It is the sound produced by sudden motion with resistance. He had always argued, that as rapid muscular motion in any other situation will produce sound, there is no reason why the same thing should not also occur in the case of the heart. He thought that the action of the auriculo-ventricular valves and the cordæ tendineæ might have some share in the production of the first sound, but it depended chiefly on the contractile tenseness of the walls of the ventricles. With respect to M. Magendie's views, all that he could concede was, that in case of violent action of the heart, its strokes against the chest may constitute the termination of the second sound, forming a kind of knocking action; but in its ordinary and healthy state, the heart does not produce any sound by striking against the chest; its apex glides upwards over the smooth surface of the pericardium, producing an im-

pulse but not a sound. Another error of M. Magendie was, that the sounds of the heart were louder when that organ was confined within the chest, as if the parietes of the latter acted as a kind of sounding board. If this were the case, and if the sound depended on the impulse against the side of the thorax, the sound would be propagated all over the chest, according to a well-known law in acoustics, and would be as audible over any part of the back as over the cartilages of the six and seventh ribs.

With regard to the killing of animals for experiments, Dr. Williams said that the woorara poison suspends the sensibility of the nervous system, without acting on the irritability of the heart, and is much better adapted for such experiments than any other substance. As the next best substitute, Dr. Williams would recommend the essential oil of almonds. In his experiments, the heart continued to beat vigorously for more than an hour after the extinction of animal life.

Mr. Dick, of Edinburgh, said he was highly gratified with the Report of the Committee, but there were some circumstances in that report which did not accord with his experience. From experiments which he had made on horses, he was induced to think, that with regard to the precise time at which the first sound occurred, it was not during the contraction, but during the dilatation of the ventricle, and that it was the dilatation of the ventricle which produced the impulse. With respect to the second sound, he thought that it was produced by dilatation of the aorta, and this view of the question appeared to be confirmed by the experiments of Dr. Williams.

Dr. Green asked what facts Mr. Dick had to prove that the impulse of the heart was caused by the dilatation of the ventricles. The Committee were prepared with proofs to show that the impulse accompanied their contraction.

Dr. Corrigan said, that a series of experiments performed by himself and Dr. Hunt, some years back, were among the first undertaken with the view of illustrating the points in question. The publication of his (Dr. Corrigan's) experiments attracted the attention of Dr. Hope, who instituted a series of experiments, the result of which went to contradict his experiments. These experiments of Dr. Hope were all said to have been verified by several eminent practitioners in London, and it was a curious fact, as showing the difficulties attendant on such observations, that the conclusions come to by the Dublin Committee, after a most patient and accurate examination, were totally different from those put forward by Dr. Hope in the appendix to his work. There was also a remarkable discrepancy between the original and subsequent statements of Dr. Hope. In the first publication of his experiments, the first sound of the heart was attributed to the friction produced between the particles of the blood and the inner surface of the ventricles; in the last edition of his work the first sound was said to be entirely independent of that friction. In his first paper, Dr. Hope's observations went to prove, that the second sound arose from the dilatation of the ventricles, and must be totally independent of the action of the valves; in his last report the second sound was said to depend altogether on the action of the semilunar valves. He mentioned these circumstances merely to show the difficulties which attended such observations. He believed that the question was not to be settled by experiments alone, but also by a careful attention to pathology, the best corrector of our observations. The statements of the Dublin Committee must be looked upon as perfectly unbiassed. With respect to the cause of the impulse of the heart, although the experiments made by him (Dr. C.) were supported by those made by Dr. W. Stokes, Dr. Hart, and M. Pigeaux, he had at present no hesitation in saying that on that point he was wrong. Finding the result of experiments on warm-blooded animals unsatisfactory, he had recourse to observations on the heart of the frog, with the view of determining this point. In this animal the impulse of the heart is during the diastole, and the process can be very satisfactorily seen, as, owing to the transparent nature of its tissues, the dilatation of the ventricle is plainly seen, by the change in its colour, produced by the rush of blood into it. He had prepared the animal to show the heart in a state of perfect action. [Dr. Corrigan here exhibited the preparation; it showed very satisfactorily, that the whole body of the ventricle was raised and pushed forwards during the diastole.] With respect to the cause of the impulse, there was considerable difference between Dr. Williams and the Committee.

Dr. Williams.—I stated that the impulse arose from the coming forward of the apex against the ribs.

Dr. Corrigan. The experiments of the Committee show, that the body of the heart has as much to do with it. Besides, there is a direct experiment to show, that the apex is very little concerned in producing the impulse. If you press your hands on the sides of the chest of a young ass, whose heart is remarkably conical and

sharp at the apex, and the point of which hangs down towards the sternum, the impulse is felt strongly high up towards the shoulder and over a considerable space, where it could not possibly be produced by any action of the conical sharp-pointed apex. I come now to the sounds. I may observe here, that there is a great source of deception as connected with the point at which these sounds are heard. Among others, is the curious one made by Dr. Elliotson, who says, that the second sound is from the auricles, because it is heard higher up than the ventricles. When you listen to the sounds of the heart in the natural state, you hear a peculiar sound which you call the first. You then open the heart and hear a sound like this, but the question is, is it the first sound? In one of our experiments, to test Magendie's statements, where a layer of air was interposed between the heart and the ribs, no sound was heard; the finger was then placed between the heart and the ribs, so as to connect them, and the first sound was heard. Was this a sound produced by the stroke of the finger against the ribs, or was it the first sound? In an experiment of the Committee, where the ventricles were filled with fluid and then compressed, was the sound heard a sound produced by the friction between the particles of blood in the ventricles, as first stated by Dr. Hope, or by the blood rushing over their rough surfaces, as stated by the Committee, or by the mere muscular contraction, as stated by Dr. Williams?

Dr. WILLIAMS stated, that Dr. Hope's opinion was, that the first sound was produced, in the first place, by the action of the auriculo-ventricular valves, next by the systole of the ventricle, and, lastly, by the *bruit musculaire*.

Dr. CORRIGAN said, that the first sound had been heard in the experiment in which the finger had been introduced into the ventricle.

Dr. WILLIAMS. Only part of the sound was heard, and this was the bruit *musculaire*.

Dr. CORRIGAN. I come now to the second sound. In the experiments made by Dr. Williams and the Committee, this sound is attributed to the action of the semilunar valves. I have stated before, that I believed it to be owing to the sudden coming together of the surface of the ventricles at the end of their contraction, and gave some experiments in proof of it. It is said this cannot occur; but I think it has been proved by the experiments of Mr. Carlile. In the frog, every particle of blood is expelled during the systole, and the sides come into close apposition; and if this occurs in a cold-blooded animal, it ought *a fortiori* to occur in the warm-blooded. I think there is no direct experiment as yet to determine this question. The Committee state, that in the experiment where one of the valves is confined, a rushing sound is heard; Dr. Williams heard a hissing sound. Might not the second sound still exist though masked by these sounds? If it be a physical sound, it ought to be produced by physical means. An experiment which I made some time back, goes, I think, to prove that the conclusions adopted on this point by the Committee require further investigation. Dr. Hunt and I, in our experiments, cut out from the heart of a donkey the ascending aorta with its valves; we tied the aorta on the end of a leaden tube of a corresponding diameter, and about five feet long. About two or three inches of the aorta then being free of the lower extremity of the tube, in this state holding the sides of the aorta together below, we filled the tube with water, and then placing the thumb on the upper end so as to close it, the fingers were withdrawn from the lower end, and the upper end still remaining closed, the external pressure of atmospheric air kept the two sides of the aorta below together, and no fluid escaped. The ear was then applied to the lower end of the tube, close to the aorta, and the thumb being suddenly withdrawn from above, the whole column of fluid came suddenly down, and distended the aorta and valves, and yet there was no sound whatever similar to the second produced. We attached to the end of the leaden tube, a piece of sounding board to assist the ear, and the result was the same as before. There are some points on which I agree with the Committee, but with respect to the cause of the first and second sounds of the heart, I do not think their experiments conclusive.

Dr. GREENE, on the part of the Committee, begged leave to remark, in reply to Dr. Corrigan's supposition, "that in the case where the rushing sound was heard after the action of the semilunar valves was interrupted, this sound might have merely marked the second sound," that this could not be the case. By the second or rushing sound, the Committee meant the anormal sound, as distinguished from the second sound, which required for its production the integrity of the semilunar valves.

Much discussion followed, in which Dr. Carson of Liverpool, Dr. E. Kennedy, Mr. Hargrave, Mr. Carlile, and the original speakers, took part, but we have not space for more than the outline we have given, and we therefore conclude with stating, that

Dr. ALISON observed, that there was a remarkable coincidence between the results of many of the experiments made here and in London. Both parties were very nearly agreed as to the motions and the cause of the second sound, and even with respect to the first they were partially agreed, as they had acknowledged the agency of the same cause in its production.

The meeting then adjourned, and here for the present we must conclude our notice. In the journal from which we quote the report occupies 100 pages.

THE LANCET.

London, Saturday, September 5, 1835.

THE Lectures-Publication Bill was read a third time and passed in the House of Commons on Wednesday night last. The alterations which had been previously proposed in Committee were adopted without the addition of any further amendments. We shall offer some observations on the measure in the next LANCET.

WE publish the following account of a *concours*, or competition, which has just taken place in the hospital of the *London University*, with much satisfaction. It is an admirable commencement of a most useful and highly meritorious reform. A few of such exhibitions will put to the blush the mercenary traders attached to *St. Bartholomew's Hospital*, and other similar establishments. Nothing was ever more scandalous than the mode in which the medical officers of our hospitals are elected. Merit is out of the question. Family connexions, intrigue, and money, are everything in them. The officers of the London University Hospital have taken the right course, and the public respect for them will ever be proportioned to the integrity and the generous course of their professional conduct. Our endowed hospitals have existed for many centuries. Within the last twelve years we have on numberless occasions exposed the pecuniary practices, the jobbing, the corruption, the scandalous abandonment of every known principle of policy and justice, which characterize the election of medical officers at our hospitals. For this we have been maligned by the hired agents and tools of the avaricious monopolists. But not one of our statements has been refuted, nor has one of our arguments been answered; and we now inquire of the base and impotent slanderers, on what occasions merit, unaided by wealth and family connexion, has been rewarded in our great endowed hospitals. It is wholly a system of nepotism,—of apprenticeship, dressership, house-surgeoncy, and pupilage—all, all—odious to remark—purchasable and purchased with coin; and thus—we fearlessly repeat—have institutions, founded with the noblest and most elevated purposes which the human mind or the human feelings can desire, been perverted from objects of benevolence and charity, into those of unmitigated cruelty and avarice. The whole system, however, has received a shock from which it can never recover. The entire fabric of corruption is tottering. There is now nothing binding, nothing cohesive about it; and down it must crumble into ruins, under the mere operation of public opinion.

The following unvarnished account will enable the reader to form an accurate conception of the excellent work which has been begun in the new hospital. Who can fail to behold in it the certain and speedy fate of the fifty-guinea extortion for the office of Dresser, and the seventy-guinea extortion for the office of House Surgeon, in the old institutions, where the fee-and-ticket-trade is still so profitable to such liberal wound-and-fracture merchants as are Messrs. TRAVERS, KEATE, LAWRENCE, VINCENT, and Co.?

Although it will be seen from this report that the examination was not a severe one, yet it was *practical*, and, in that respect, was suited to the character of the office which it was intended to fill. If, however, we might be permitted to make a suggestion for any future examination of the kind, we would remark that it would not be unimportant to commence the examination on the foundation on which every practical application of the science of medicine must ever repose,—namely, the anatomy of the human body, without an accurate knowledge of which every thing connected with the practice of medicine—strictly so called—is reduced to empiricism—and almost every operation in surgery is attended with danger to the afflicted.

ELECTION OF HOUSE SURGEON AT THE NORTH LONDON HOSPITAL, BY PUBLIC EXAMINATION.

The first instance in this country in which the election of a medical officer has taken place by *Concours* has occurred at the above hospital, in which there is a law ordaining that the election of house surgeon shall be decided by the merits of the candidate for that office, and that the test of their merit shall consist in an examination which shall be open to the attendance of the hospital pupils and any other respectable persons who may choose to be present. The qualifications of the candidate for the examination are directed to be the following:—

He must have served a three months' dressership * in the wards of the hospital. He must possess a good moral character. His previous attainments are to be taken into consideration, without regard to the place of education.

There were three candidates on the present occasion, and the examination (which may be divided into three portions) was conducted in the following manner:—The first portion was gone through on the first day; the two others on the next.

1*st Division.*—The Principles of Treatment in Surgical Diseases.—These were made the subject of written questions, the answers being given under cover, with mottos attached, and not opened until the other part of the examination had been gone through, in order that no feelings of prejudice should be created in favour of either candidate by ascertaining the extent of his proficiency in this branch. The questions asked were the following:—

1. How are wounds of the palmar arches to be managed in different stages, but more especially as involving secondary hemorrhage?

2. In what cases is trephining of the skull to be resorted to?

3. Give the coverings of the testis, and describe the symptoms and appearances of hydrocele of the tunica-vaginalis.

2*nd Division.*—The actual application of apparatus required in the treatment of fractures, dislocations, &c. The mode of applying bandages, and the mode of dressing after operations have been performed.

3*rd Division.*—The performance of those operations which are likely to be required of the house surgeon.

These last two portions of the examination were conducted in the clinical theatre, and the applications and operations were practised on the dead subject. The names of a great number of the minor operations were written on slips of paper, and placed in a hat, from which the candidates afterwards drew them, each candidate drawing one. The operation first performed by one of the candidates was then performed separately by the others, only one candidate being present at a time. The candidate first named what instrument he would require for the operation he was about to perform, and when performed he described the treatment, dressings, &c. The other candidates were then admitted singly, and underwent the like tests. The operations performed were,

1. Amputation of the toe with a portion of the metatarsal bone.

2. Amputation of the first phalanx of the finger.

In the 2nd division,—that which consisted of the actual application of apparatus, the following subjects were drawn:

1. Dislocation of the elbow backwards—What is the mode of reduction? In what position is it to be afterwards kept? Reply to questions on points bearing on the subject.

2. Fracture of the jaw on one side, its treatment; with application of bandages, &c.

3. The bandaging of the leg and foot in injuries.

* The dressership at this hospital are free to all perpetual pupils, without the payment of any fee. The pupils who desire the appointment are simply examined as to their proficiency. The house surgeoncy is equally free from all imposts of money.

4. The bandaging of the stump of a thigh.

The various applications involved in these inquiries were made before the Committee appointed to conduct the examinations and election, consisting chiefly of the medical officers of the institution, who afterwards retired, perused the papers sent in, and decided on the candidate whom they then considered most competent to fill the vacant office.

Dr. THOMSON, the chairman of the committee, shortly afterwards entered the theatre, and announced that Mr. WALLIS was the successful candidate; adding, however, that the committee had requested him to acknowledge publicly that the other two candidates had afforded the committee great satisfaction by the manner in which they had undergone the trial of the concours.

Contrasted with the foregoing, let the reader take into his consideration the following "Laws" which have been sanctioned by a Special Court of the Governors of *St. George's Hospital* for regulating the appointment of House Surgeons in that institution. The authorities of *St. George's* have just published a book, extending to fifty-six pages, embodying the entire code of new laws for the government of the hospital. In page 43 of this curious production we find the following:

"*Of the House Surgeon.*

"1. They shall be appointed, and shall be liable to suspension and removal, *by the Weekly Board.*

"2. They shall, when appointed, have been *pupils of the surgeons for three years at least, and of the physicians for one year at the least*, and shall be *recommended* and *introduced* to the Weekly Board BY THE SURGEONS.

"3. They shall reside and board in the House, and take their meals at the Board-room table, *and shall pay the sum of fifty pounds, on their appointment, to the treasurers*, and shall fill the office for twelve months, and no more."

Here is a precious picture! We have referred to the fees of *St. George's* and the *North London Hospitals*, and we find the account between them to stand thus, as to the conditions and expenses of obtaining the office of House Surgeon in each institution:

At *St. George's Hospital*, the candidate must have been a physician's pupil during one year at a cost of	£16 16
The Apothecary's fee is	1 1
The fee on becoming a surgeon's pupil for three years is.....	52 10
The payment to the Treasurer, on receiving the appointment of House Surgeon is	50 0
Three years cost of board and lodging, and incidental expenses during the period of the dressership, at a hundred and twenty pounds a year (his appointment, after all, being made *by favour*, through the "*recommendation*" and "introduction" of the Surgeons to the Weekly Board), will be	380 0
The three years' loss of time in such an hospital as *St. George's* we will not attempt to estimate, because at such a period of life so great a sacrifice cannot be estimated by any sum which can be named. Taking therefore the sums actually *paid*, the total for obtaining the office of House Surgeon at St. George's (and worthless enough it is when obtained) amounts to	600 7

As the four first-named sums are taken from the hospital prospectus and book of laws, we cannot be accused of stating them inaccurately. And now take the account of obtaining the House Surgeoncy at the North London Hospital.

For perpetual attendance on both the medical and surgical practice of the hospital, and for the office of dresser	26 5
The office of house surgeon, superadded, purchased by	Merit.

Not another word will we offer on the subject.

A LETTER addressed to Lord MELBOURNE by Mr. BEDINGFIELD, of Stowmarket, is inserted in THE LANCET of this day, and on perusal will be found to relate to a subject which is well worthy of the attention of the profession.

Without dwelling on the special facts stated by our correspondent, we may em-

brace the present opportunity of offering a few general observations on the effects which the conduct of the Poor-law Commissioners is likely to produce with respect to the welfare of the poor and the interests of the members of the medical profession.

In candour we are bound to state that we view the new Act as being an odious measure. It is detestable in principle, and must operate with the utmost cruelty in practice. The measure seems to have been framed with a design, not to amend, but to utterly destroy, every benign provision of the 43rd of Elizabeth. Certainly nothing could have been more fortunate for the promoters of the new bill, as to the period which has been afforded for bringing it into partial operation. There has been an abundance of employment for labourers; wages, as compared with the prices of provisions in former years, have maintained a higher rate; and bread—the staple article of life amongst the industrious classes—has not been lower in price for upwards of thirty years. But let there be a change of scene,—let a revolution in these circumstances transpire, and then we shall behold a woeful change as to its results. When there shall come a scarcity of employment, with a high price of provisions—states of things which are by no means incompatible with each other,—then the Poor-law Commissioners will discover the difficulty of the task they have to execute. But we do hope that the accounts which are flowing in from the different parts of the country will induce the Ministry to render less stringent some of the harsh provisions of this most abominable enactment. The rights of the poor are founded on the rights of nature, and it becomes a fearful time for the oppressors of the afflicted when those rights are enforced by the resistless claims of necessity. It may be very amusing for gentlemen constituting Parliamentary assemblies at Westminster to send out pieces of parchment, on which are written certain mandatory provisions; but it becomes by no means amusing if it is found that the people are rising in direful array to resist the attacks of men who, according to the theory of our constitution, ought to be their defenders and guardians.

That an alteration was required with reference to the mode of relieving the poor in this country, no man will deny; but why engraft a new system on the abuses of an old one? Speaking comparatively there were no abuses where there were open vestries, but having established select vestries under Sturges Bourne's Act, and under some thousands of local Acts,—having founded an odious system which fostered peculation and jobbing of every kind, then a Bill, engrafted on that abominable system, is brought forward; whereas the whole of the select-vestry system ought to have been abolished from the practical working of our constitution Here has been the error, and one, it will prove, that is pregnant with the most frightful consequences. It is impossible to coerce the mass of an enlightened people. Even the attempt to do so is fraught with the greatest danger to the whole of our institutions. In treating the poor with cruelty and neglect, we become our own enemies; because, while we profess to value wealth, we strike at the very existence of the creators of wealth. Our affection is yielded to the thing produced, while we totally disregard the producer. We have no longer a fable in the story of the goose and the golden egg.

When medical practitioners complain so loudly—and most justly complain too—of the injuries and injustice to which they are subjected by the mode of contracting for the care of the sick poor adopted by the commissioners, have those functionaries thought even for one moment of what must be the effects of such a system on the sufferers? If the time occupied by

the practitioner in riding across twenty miles of country is an inconvenience and a sacrifice to that gentleman, is not the prolonged suffering of the patient a still greater evil? Good heavens! The cruelty of this practice cannot, must not, be endured; let us hope that what has recently passed at Somerset House, is only the precursor of the entire abolition of this barbarous, this savage mode of contracting—not for the *treatment* but for the *destruction* of the sick poor. A deputation of medical gentlemen from Kent, headed by Mr. LAW HODGES, the kind-hearted member for that county, waited last week on the Poor-law Commissioners, and explained to those gentlemen the injustice which the Commissioners were inflicting on the poor, and on medical practitioners, by the present mode of effecting medical contracts in the Unions.

The Commissioners, finding that they could not defend the system, declared that the Guardians of the Poor in the respective parishes, should not be prevented from entering into as many contracts as they pleased with medical men. We trust, therefore, that there will be no additions made to the number of giant contracts already executed, and that even in the Unions where these have been established, others will be made between the old-established resident practitioners and the legitimate guardians of the poor.

It is quite certain that this subject must engage the attention of the legislature early in the next session. We trust, therefore, that those gentlemen who have an opportunity of observing the many disadvantages which spring from even the new mode of administering the poor laws, with reference to medical practitioners, will not neglect to forward such accounts to members of Parliament as may contribute towards swelling the list of evils to such an amount that the claims for redress will be irresistible.

From the nature of the promise made by the Poor-law Commissioners to Mr. HODGES and the other members of the deputation, we have every reason to believe that Mr. BEDINGFIELD will receive from Lord MELBOURNE a satisfactory reply to his excellent and spirited communication.

NORTH LONDON HOSPITAL.

ŒDEMA OF THE GLOTTIS.—LARYNGITIS IN A CHILD.

TWIDLE ALDRIDGE, aged eighteen months, was admitted an out patient on Monday, May 18, under the care of Dr. DAVIS. His mother states, that he has been ailing since last Wednesday, when, after exposure to cold, he became the subject of febrile symptoms with cough. These symptoms continued unabated during Thursday, and were much increased on Friday, when an additional symptom—constant hiccup—presented itself, and has continued until the present time. She also states that his motions are dark-coloured and highly offensive, and that since the commencement of his indisposition, he has spent restless nights.

The symptoms at present are,—a hot pale skin, excepting at the extremities, a cough resembling that which is characteristic of croup; hiccup; wheezing, dyspnœa, lividity of the lips, cold extremities, white tongue; pulse 160; countenance indicative of acute distress; excessive tenderness over the larynx and upper part of the trachea; enlargement of the epiglottis. Blood was ordered to be taken to fainting. Half a grain of emetic tartar and ten of ipecacuanha to be taken two hours afterwards.—*P. m.* Fainting was produced after the loss of four ounces of blood. The hiccup has not occurred since the bleeding. The dyspnœa and wheezing are still present, but are diminished in severity. The emetic operated. The feverish symptoms have somewhat abated. Tenderness is yet complained of in the region of the larynx. Two grains of calomel were ordered every two hours, and eight leeches to the trachea, and after the bleeding from them has ceased, a blister to be applied over the bites.

19. The dyspnœa and wheezing relieved. The child has been restless during the night; the skin, however, is cooler than it was yesterday; pulse 150. The

calomel to be continued, with one-sixth of a grain of opium in each dose.—*P. m.* The child is brought in great haste by the distressed mother. It appears in imminent danger of suffocation. The operation of trachcotomy is proposed as the only probable chance of saving life. It is not acceded to. Three grains of calomel with one-sixth of a grain of opium to be given every two hours.

20. Has had a better night's rest, and appears to be much easier, breathing with much more freedom. The gums are not yet affected, although a drachm of calomel has been taken, and the bowels have been confined rather than otherwise. A purgative powder of calomel, jalap, and ginger, to be given directly.—*P. m.* Has passed a very offensive dark-coloured motion. Pulse diminished in frequency; skin cool; tongue cleaner; the calomel and opium to be taken every four hours.

21. Has slept well; breathing perfectly natural; pulse natural; tongue clean; bowels regular. The medicine to be discontinued. From this time forward no extraordinary symptoms presented themselves; a very slight fetor of the breath could be distinguished, but no tenderness of the gums. Reported cured.

Dr. Davis considered this to be a case which illustrated the good effects of the practice of bleeding to complete fainting in the acute inflammatory attacks of children. Here was a case of inflammation of the larynx and upper part of the trachea in a child, unattended by the formation of false membranes; œdema of the submucous cellular tissue, and a consequent diminution of the opening through the larynx, were the effect of the inflammation, and would no doubt have speedily terminated fatally, had not the above prompt measures been adopted. The following indications were fulfilled in the treatment: the subduction of the excited state of the circulating system, removal of local congestion, relaxation of the cutaneous exhalents, and the promotion of perspiration, and evacuation of the contents of the stomach and bowels; thereby putting the mucous membrane of the intestinal canal under favourable circumstances for being acted on by remedies calculated to fulfil another indication, viz., excitement of the absorbents or capillaries to increased action. Another indication also was fulfilled by the opium,—the subduction of irritation.

FRACTURES OF THE PATELLÆ.

Case 1.—Eliza Fletcher, aged 26, was admitted, July 7th, under the care of Mr. Liston. She states, that while running down stairs she slipped, and in making an attempt to recover herself, felt something give way in both knees, and fell backwards on the stairs. She was unable to rise after the accident. The pain at first was slight, being described rather as a numbness than a pain. A medical man was sent for, who found both patellæ fractured, and sent her to the hospital.

The fracture is transverse on both sides, and also about the centre of the patella. The pain is now very considerable, but there is scarcely any swelling. The fragments on the left side were separated to about the extent of an inch, and on the right side a little more, but they could be brought pretty accurately into contact by raising the heel. The limbs were bandaged from the toes upwards to the middle of the thigh, and a splint was applied behind, reaching from the middle of the leg to the middle of the thigh. The heels were kept raised and the shoulders elevated, so as to bend the trunk on the thighs, by means of the fracture-bed. In this way the fractured extremities were kept pretty accurately in contact, and the motion of the extremities was prevented. The same position was retained until the 14th of August, when the splints were removed from the limbs, and she was allowed to assume the horizontal position,—union on both sides appearing to be pretty perfect.

Case 2.—Harriet Taylor, aged 50, was admitted May 17, under the care of Mr. Liston, with fracture of the patella of the left leg. In this case the fracture had occurred about ten days before her admission, and the limb had been put up by a practitioner in the neighbourhood. It was occasioned by direct violence, the woman having fallen and struck the knee against the curb-stone. The fracture was transverse, and about the lower third of the patella. The swelling was very considerable, and the fragments were separated about two inches. The limb was put up in the same manner as in the preceding case, but the fragments could not be brought closer than an inch apart, in consequence of the swelling.

19. The same position has been retained since the last report. The swelling subsided in a few days, and has now completely disappeared, but the fragments could not at any time be approximated within the inch, and ligamentous union has now taken place with that interval.

Mr. Liston, in lecturing on fractures of the lower extremity, illustrated by cases in the hospital, remarked that the patella was either broken by the action of the muscles, or by direct violence; other bones might also be broken by the action of the muscles. He knew a case in which the humerus was fractured by the throw-

ing of a cricket-ball; and cases also were on record in which that bone had been broken by a strong man striking out and missing the object at which he aimed. The femur had also been broken by a similar occurrence. The cases above related offered examples of the accident occurring from each of the two causes. The state of the matter was however very different. Generally, in fractures from the action of the muscles, the portions of the fractured bone were separated to a considerable distance, and the investing and surrounding fibrous tissues were extensively lacerated. It was seldom that these tissues gave way without the bone being also fractured; he had never known a case in which the ligamentum patellæ had been torn by the action of the muscles, but he had once seen an instance in which the combined tendon above the patellæ was torn across in both limbs. In fractures from action of the muscles there was rarely much extravasation, nor did much excited action follow.

In the other case there was always bruising of the soft parts, and the fracture was frequently starred, longitudinally as well as transversely. There was less laceration or separation of fragments, the excited action, however, was generally considerable. The patella when fractured might form an osseous union; every part was endowed with sufficient power of reparation, by means of a substance similar to itself, if under favourable circumstances. These circumstances were exceedingly unfavourable in fractures from muscular action; no temporary callus could ever be formed round this bone to any great extent. It was thinly covered outwardly by a yielding tissue, whilst its internal surface formed part of an articulation. No apprehension need be entertained of callus exuding into joints, nor any precautions taken to prevent it, as had been recommended by some authorities; there was nothing, in fact, for provisional callus to be deposited in. Accurate, close, and long-continued apposition, was wanting to secure osseous union, if that were desirable; but in fractures attended with laceration of the fibrous covering of the bone, the surfaces could with difficulty be kept so opposed. In fracture, again, with bruise, osseous union could and did occur—in the longitudinal one certainly, yet slowly, showing that there was no indisposition to osseous deposit in the vessels. It was not, however, desirable, under any circumstances, to bring about osseous union of transverse fractures—the ligamentous being far more quickly completed, stronger, and less apt to be again displaced, the power of the muscle by the lengthened attachment being of course diminished. If the interposed ligament were long, the motions of the limbs were imperfectly performed; but if short, as in Fletcher's case, the motions were not interfered with. The treatment adopted in both cases was similar; the approximation of the displaced portions being effected by position alone, a bandage was applied loosely to the limbs, with a view only of retaining a splint, which was placed at the back of the limb as a precautionary measure. The extensors of the legs were still further relaxed by the limbs being kept on an inclined plane. Mr. Liston reprobated the employment of any species of complicated machinery to bring or retain the upper fragment in contact with the lower. In surgery, as in medicine, the simpler the treatment the better.

Mr. Liston exhibited preparations showing union of the patella after longitudinal fracture, and one specimen of transverse fracture united by bone; also one imperfectly united, obtained from a patient who had contused the knee-joint, and broken the bone, by falling from the mast of a ship; he lived eight weeks.

OSTEOUS SARCOMA OF THE FOOT.—AMPUTATION OF THE LEG.

Mary Ann Brooks, aged 50, was admitted a few days since under the care of Mr. Liston. About four years ago she injured her left foot by treading on a broken patten ring, which wounded the sole, but did not prevent her from working, and soon healed. About a year and a half since she perceived a swelling in the situation of the wound, and suffered great pain from it; suppuration took place, and small portions of bone came away, since which time the swelling has gradually increased in size.

The swelling at the present time occupies the whole of the metatarsus and the greater portion of the tarsus, projecting considerably over the inner border of the foot; in some parts it communicates a doughy semi-fluctuating sensation when handled. There is an ulcer about the size of a halfpenny over the first metatarsal bone, the discharge from which is also very fetid and frequently mixed with large quantities of blood. There is also another sore, though much smaller, over the third metatarsal bone. The tumour measures one foot and a half in circumference. Mr. L. thought that the proper proceeding would be to amputate the leg.

Operation.—The operator stood on the outer side of the limb; an incision about an inch and a half in length was made

over the tibia on the inner side, and at the lower part of its upper third. The knife was then carried over the fore part of the leg to the outer side, over the fibula, to a point opposite the upper part of the first incision. It was then passed behind both bones, and the point brought out at the incision on the inner side, the flap being formed from the muscles of the calf, the bones were then divided, only one vessel being secured.

Mr. LISTON remarked that the advantages of operating high up as he had done, consisted in the pressure of the limb being made on the knee, and the avoidance of the inconvenience of a long stump, which generally got entangled in the clothes, and was otherwise annoying. He had in six cases removed the head of the fibula, as recommended by several military surgeons, but he did not think the plan a good or a safe one. He had only found it necessary to secure one vessel in the above case, from the circumstance of the incision being made above the division of the popliteal.

ST. BARTHOLOMEW'S HOSPITAL.

ACUTE RHEUMATISM AND PERICARDITIS.

MARY ANNE HAWES, a robust, healthy, good-looking girl, was admitted into Mary's Ward under the care of Dr. LATHAM, on the 22nd of July, the above diseases being evidenced by her symptoms on her admission. Countenance flushed; augmented heat of the surface; copious cutaneous exudation; tongue much furred and dry; pulse 80, indicating a want of power; bowels influenced by medicine; great thirst, anorexia, acute pain in the knees, ankles, and wrists, more especially in the left wrist, which has undergone great tumefaction. She remembers about five years ago having a severe attack of rheumatism, that confined her to her bed for a period of nine weeks. At that time she experienced great pain in the left side, but has since enjoyed very good health, until about three weeks ago, when having imprudently exposed herself to the baneful effects of sitting on wet grass, she was unable to walk on account of severe pain in the knees. Leeches were applied, but the symptoms have continued unabated. Prescribed half a grain of opium and five grains of calomel.

3. Has experienced some advantage from the treatment. The stethoscope discovers the heart's first sound to be attended with a little roughness. Apply twelve leeches to the heart, and administer a senna draught. Rested pretty well; bowels evacuated three or four times during the day.

4. Passed a more comfortable night than she has for some considerable time. Tongue less furred but still dry; pulse 80; one alvine dejection voided to-day; the pain and swelling have subsided in the knees, but have affected the hip and shoulders; and the wrists and the elbows are very painful. The heart's first sound to-day is decidedly prolonged, and the roughness is augmented. Ordered two grains of calomel and a quarter of a grain of opium every six hours.

5. Pain greatly diminished; countenance less anxious; pulse, heart, and the concurrent symptoms, unaltered.

6. Rested more tranquilly last night than usual, but still suffers considerable pain in the wrists and elbows. Pulse 90; tongue much furred; bowels regular; her heart palpitated for a short time to day. Auscultation cannot detect any distinct unusual sound.

7. Considerable improvement is apparent to-day; pain mitigated; can exercise her elbows a little; the alvine functions are regularly performed; pulse 90.

8. She enjoys almost a freedom from pain; tongue still dry, and somewhat less furred; pulse soft, computing 76; Bowels still act with regularity; there is some thirst.

10. Her symptoms viewed *en masse*, evidence decided improvement, but she complains of very severe pain in the region of the heart, and the ear ascertains the heart's first sound to be yet prolonged, with still a suspicion of roughness. Let eight leeches be applied to the heart.

11. There is pain now in the region of the heart, the stethoscope still affords a very dubious result.

13. Rests pretty well; some pain in the right wrist still exists; tongue slightly furred; pulse soft; in number 76; bowels regular; no return of appetite. Omit the calomel.

15. Still evidencing improvement; auscultation the same as in last report.

18. Acknowledges herself to be better in every respect. Tongue cleaner; pulse 80; alvine excretions normal; perfect freedom from pain. All suspicion of unnatural sound of the heart appears to be receding.

29. Since the last report she has been walking about, and complains of an impediment to her breathing; pain in the region of the heart and some palpitation; auscultation announces some degree of roughness at the base of the heart.

August 5. She left the hospital (*pro tempore*) the day before yesterday, and

evinces to-day some pain in the left side. On examining the chest a bruit de soufflet is observed.

August 14. She has attained her previous healthy appearance, and purposes to-day to take a farewell of her Bartholomew friends, to revisit the place of her nativity in the vicinity of Dover.

DIAPHRAGMATIC HERNIA.

Mr. LAWRENCE, during some clinical observations, directed the attention of the pupils who were present to a case not less singular as he said in its history than it proved rare in occurrence; it was that of diaphragmatic hernia, or where a portion of the contents of the abdomen, such as the intestines or omentum, was protruded through the diaphragm into the cavity of the chest. These were circumstances under which a just diagnosis was very difficult to be formed, from the impossibility of getting at the immediate seat of the disease; for although the concomitant symptoms of strangulation obtained, still there was wanting that proof so confirmatory of the existence of hernia, the external protrusion or swelling, cognizable alike by the taxis and the sight. The history of the case above alluded to was as follows, furnished by Dr. Norris, formerly a pupil of this hospital. The patient, a strong healthy man, after exerting himself to an unusual extent in walking a distance of twelve or thirteen miles, was attacked with sickness, retching, and pain, referable to the left side, under the cartilages of the ribs; his pulse was frequent and hard, and there were general symptoms of fever, accompanied by difficulty of breathing. On examination Dr. Norris discovered that there existed little or no respiratory murmur on the left side of the thorax, and that the pulsation of the heart was not audible in its normal situation, but was heard to beat on the *right* side of the chest. Notwithstanding several remedies which were employed, all the unfavourable symptoms became aggravated; tension of the belly, increased pain, a higher state of fever, and great restlessness, were but the precursors of the more formidable signs of approaching dissolution. Hiccough, cold sweats, and spasmodic rigors, in a few days ended the tragedy. At the examination after death the following appearances prevailed; on opening the abdominal cavity no omentum whatever could be discovered, and the intestines were distended with flatus and presented various stages of inflammation; on endeavouring to trace the course of the colon, its descending portion was found wanting; a small hole, however, was seen penetrating the substance of the diaphragm at its posterior part near its spinous origin, through which the intestines might be traced. On removing the sternum the extraordinary contents of the left pleural cavity became discernible, consisting of a large portion of intestines, the whole of the omentum, a great portion of the spleen, and the entire pancreas,—so completely occupying the left side of the chest, that the lung was compressed to the size of a man's fist, and the heart and mediastinum were pushed towards the right side, as frequently obtains in empyema occupying one cavity of the pleura, where, in the same manner, by pressure, the lung becomes consolidated by the obliteration of its air-cells, or, in other language, is carnified, and the heart is likewise displaced. This hernia did not appear to be an actual rupture through the substance of the muscular septum, occasioned by any sudden and violent compression of the abdominal viscera, because the protruding parts were not enveloped in a sac. They had not carried through the opening an investment of peritoneum, and the edges of the wound through which they had egressed were quite smooth and round, apparently formed by a continuation or junction of the two serous membranes which composed its upper and under surfaces. This circumstance Mr. LAWRENCE observed would lead one to conclude that the communication between the two cavities was of congenital formation, though he should imagine that the displacement of the abdominal viscera had existed but recently, in consequence of the violent exertion the poor fellow had made during his unusually protracted walk. Mr. L. again alluded to the difficulty of diagnosis in this case, though, he remarked, the fixed pain of the side, the change of situation of the heart, and the arrested respiration in the left side, might perhaps have led to a conjecture of the nature of the disease. A preparation, showing the parts as removed by Dr. NORRIS, was then exhibited, and sent round for the inspection of the students.

ANATOMY AT THE DUBLIN COLLEGE.

To the Editor of THE LANCET.

THE late season being the last I could devote to the study of anatomy, it was my object to get as much information on the subject as possible, and with this view I sought about to ascertain where I could get the greatest assistance, as I was somewhat backward in practical anatomy. I was at once captivated by the parade of no less than five names in the advertisements from the school of the Dublin College of

Surgeons, put forth as demonstrators and assistants in practical dissection. As I knew from previous experience that the professors there, different from what prevails in other schools, give the regular demonstration lectures, I did hope that I should always have the assistance of one out of the five, and with this impression closed with Mr. Harrison. But, sir, what was the result? Two of the gentlemen never showed their faces, one only distributed the subjects, the fourth superintended the injection of subjects, and this only for the early part of the season, and the fifth gave ordinary table attendance.

I have had abundant experience in almost all the schools in Dublin, and some experience elsewhere, and I confess that I never received less or more unsatisfactory assistance in any of them. I confess that I am inclined to coincide with one of your correspondents, who stated, I remember, early last season, that this numerous staff was a mere expedient to enlist pupils, especially since two of the demonstrators were extensive grinders.

What the intention really was of such announcements I presume not to say, but as to the effect, at least in my case, I feel no hesitation in stating that I was deceived by them, and my object in informing you of this is, that others who may be placed in my predicament, may have some other reason for patronising the College school.

I am, Sir, your obedient servant,

EX DISCIPULUS.

Died on Friday week, at his residence in the country, Sir William Blizard, aged ninety-three years, one of the surgeons to the London Hospital for nearly sixty years.

A CORRESPONDENT, whose name and address are attached to his communication, has forwarded to us the following note:—

"Mr. —— presents his compliments to Mr. Wakley, and takes the liberty of suggesting to him, that he will much assist a charitable cause if he will draw attention to the Advertisement relative to the distressed state of the late Mr. BURNETT'S family, by a line or two in THE LANCET. The advertisement appeared in THE LANCET a week or two ago, and will be in the Number for Sept. 5."

We not do know how else to serve the object which our correspondent has in view, and we therefore insert his note. Mr. Burnett was personally unknown to us, and we cannot, consequently, speak of his private or professional worth. But the claims of surviving relatives, who in the loss of a member of the profession lose their chief means of pecuniary support, are always strong upon those who possess the means of indulging in acts of benevolence. The medical profession is singularly deficient in other sources of appeal for such relief. The more urgent, therefore, are the requirements of its necessitous connexions for eleemosynary aid. We trust that the reference of our correspondent to the advertisement will not pass unheeded.

The communication of *Mr. G. D. Dermott* cannot be inserted, and is left out for him at the office.

In the advertisement of Mr. Buchanan, of August 22, in the second column of the third page of the cover, the terms of Mr. Buchanan for "Qualifying gentlemen to pass their Latin Examinations at Apothecaries' Hall," should be stated at 2*l.*

METEOROLOGICAL REPORT.

(*Extract from a Meteorological Journal kept at High Wycombe.*

Lat. 51° 37′ 44″ North, Long. 34° 45″ West.)

Days.	Thermometer.		Barometer.		Rain.	Wind.	Weather.
	Highest.	Lowest.	Highest.	Lowest.	Ins. Dcls.		
Aug. 24	72.	45.75	29.32	29.29	0.0125	S.	Rain at intervals.
25	70.50	49.75	.38	.31	—	N.W.	Dull morn. Afterwards fine.
26	61.50	48.50	.44	.42	—	N.W.	Threatening, but no rain.
27	67.50	46.50	.63	.45	—	N.E.	Fine.
28	68.50	42.50	.78	.72	—	E.	Fine.
29	75.25	38.75	.78	.75	—	E.	Threatening, without rain.
30	68.	41.50	.78	.77	—	N.E.	Fine.

Sept. 1, 1835. W. JACKSON.